

June 2, 1931.

J. H. VAN DEVENTER

1,808,695

WALKING TOY

Filed Nov. 2, 1929

2 Sheets-Sheet 1

Fig. 1.

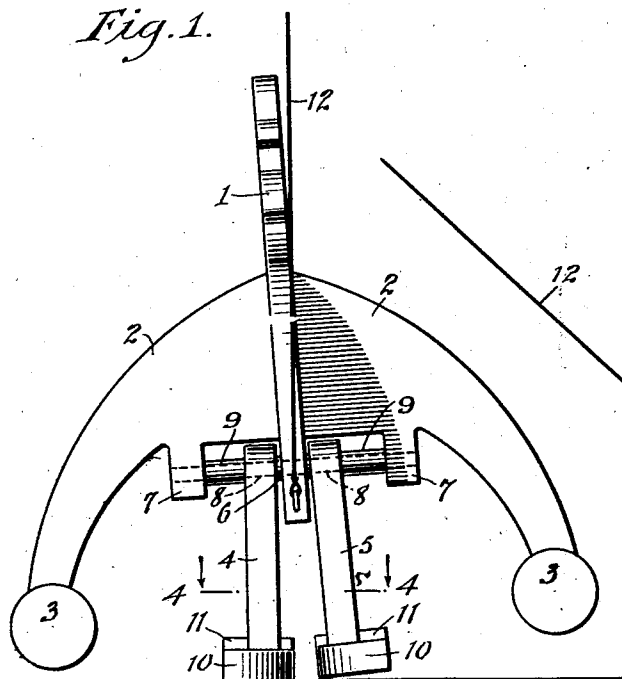


Fig. 2.

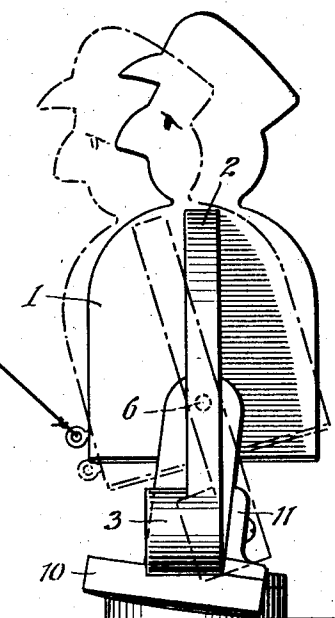


Fig. 3.

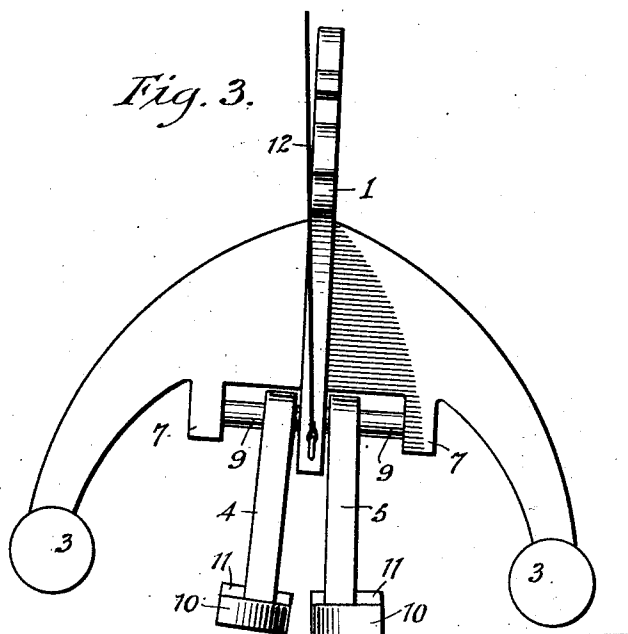
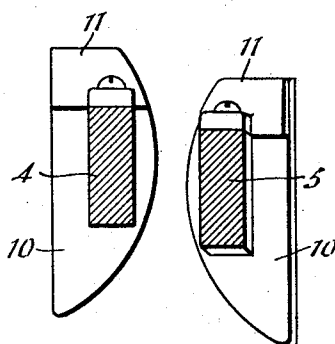


Fig. 4.



WITNESSES

Edw. Thorpe
S. W. Porter

INVENTOR

John H. Van Deventer

BY

Mumford & Co.

ATTORNEY

June 2, 1931.

J. H. VAN DEVENTER

1,808,695

WALKING TOY

Filed Nov. 2, 1929

2 Sheets-Sheet 2

Fig. 5.

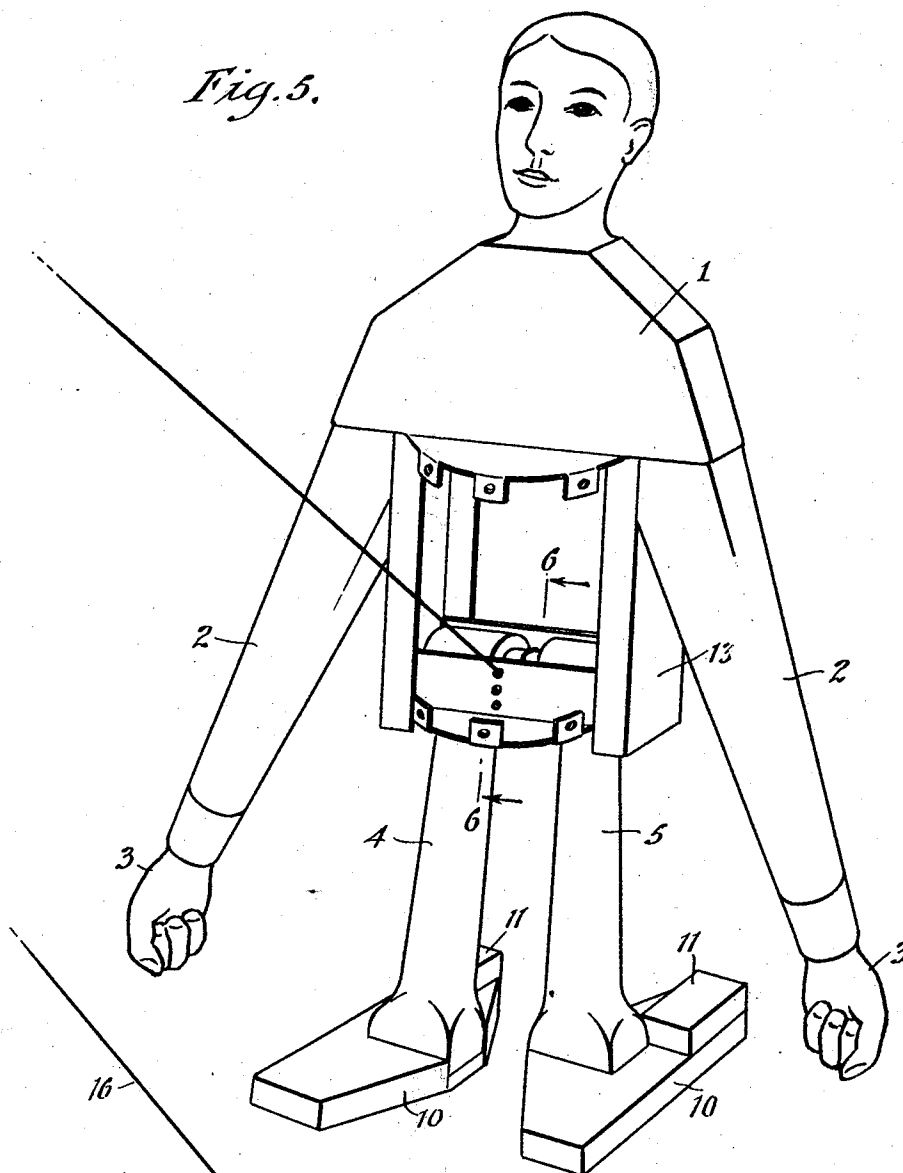
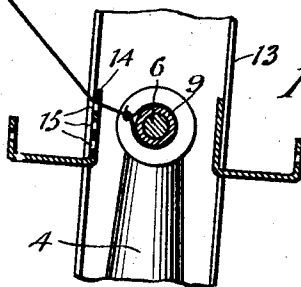


Fig. 6.



WITNESSES
Edw. Thorpe
S. W. Foster

INVENTOR
John H. Van Deventer
BY *Mumma*
ATTORNEY

UNITED STATES PATENT OFFICE

JOHN H. VAN DEVENTER, OF YONKERS, NEW YORK

WALKING TOY

Application filed November 2, 1929. Serial No. 404,339.

This invention relates to walking toys, an object of the invention being to provide a toy of this character which is designed primarily for walking on a level base when drawn or moved although the toy is capable of gravity locomotion when moving down an inclined plane.

The invention has relation to the same class of toys as disclosed in my copending application filed November 17, 1928, Serial No. 320,151, but embodies certain features of novelty in the art, all of which will more fully hereinafter appear.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, which will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is a view in front elevation of one form of my improved toy, showing one foot in a forward position with relation to the other foot;

Figure 2 is a view in side elevation of the toy, as illustrated in Figure 1, showing by full lines and dotted lines the different positions of the body in its swinging or oscillating movements;

Figure 3 is a view in front elevation showing the toy supported on the foot which is in the forward position in Figure 1, or, in other words, illustrating a complete step of the toy from the position shown in Figure 1 to the position shown in Figure 2;

Figure 4 is a sectional plan view on the line 4—4 of Figure 1;

Figure 5 is a perspective view illustrating a modified form of my invention;

Figure 6 is a fragmentary view in section on the line 6—6 of Figure 5.

I shall first describe the construction of the toy and later its operation.

Referring more particularly to Figures 1, 2, 3 and 4 of the drawings, 1 represents a body having arms 2, 2 fixed to the body and at opposite sides thereof and extending outwardly and downwardly and having weights 3 at the free ends of the arms. These weights 3 may constitute hands, as illus-

trated in the modified form of the invention shown in Figure 5 of the drawings, and they may not be visible as weights, but in any event it is to be understood that the arms are sufficiently weighted to cause them to properly function as will hereinafter appear.

4 and 5 represent the right and left legs of the figure, and said legs 4 and 5 are pivotally connected to the body 1 and arms 2 by a common axis. This axis preferably constitutes a pin 6, which extends through lugs 7 on the arms and through the lower portion of the body 1 and also through openings 8 in the upper ends of the legs 4 and 5, and suitable spacing sleeves 9 may be provided on the pin to properly space the several parts connected thereby.

The lower ends of the legs 4 and 5 have feet 10 secured thereto. These feet 10 have flat or smooth lower faces and at their inner edges have a curved or otherwise contoured edge, so that the feet are widest at their intermediate portions and tapering toward both ends.

However, the rear portions of the feet and legs at the rear of the axis 6 are heavier than the other portions of the feet and legs, and a simple means of rendering said portions heavier is to secure weights 11 on the rear portions of the feet and legs, as clearly indicated in Figures 2 and 4 of the drawings, or in any other manner having the leg axis formed of the heavier portion of the leg and foot.

A cord or other flexible device 12 may be connected to the body 1 at its forward portion so that by means of this cord the toy may be moved forwardly to cause it to walk.

As above stated, when walking on a level base it is desirable, if not absolutely necessary, to so design the foot that the major portion of the weight lies back of the horizontal projection of the leg axis. This causes the foot to swing forward when hanging free on the leg axis but the toy is operated on a horizontal plane.

Additional weight can be supplied in any approved manner but heel weights or weights at the rear of the feet appear to be a preferable arrangement.

In the modification illustrated in Figures 5 and 6 of the drawings, I utilize the same reference characters to indicate like parts wherever possible, so that I employ the reference numeral 1 to indicate the body generally, the reference numerals 2, 2 to indicate the arms of the figures, and the reference numerals 3, 3 to indicate the hands which constitute weights at the ends of the arms. The legs of the figure are indicated by the reference numerals 4 and 5, the feet by the numeral 10 and the weights on the rear of the feet by 11.

In this modification, the body has an open framework 13, which is connected to the legs 4 and 5 by the pin 6, constituting the common axis of the body and legs. A cord or other flexible device 16 may be connected to one of the spacing sleeves 9 on the pin 6.

It is, of course, to be understood that the toy may be dressed or ornamented in any way desired, and while I have shown the device as a doll or the like it is obvious that the invention may apply to other forms of walking figure, although in this particular case my invention is more specifically directed to a figure which simulates the action of a person in walking as distinguished from a rolling or other peculiar movement of fowl or animal.

In operation the weight of the body and arms shifts from one side of the vertical to the other in accordance with the foot which is supporting the figure. With the figure as shown in Figure 1 of the drawings supported on the right foot 4, a forward pull on the cord 12 will cause the body to swing forwardly and at the same time to swing laterally so as to rest upon the left foot 10, and when thus supported the right foot will be elevated so that by reason of its weighted rear end said unsupported foot will swing forwardly, as indicated in Figure 2 of the drawings, and the body will then be supported on this foot as a continued pull on the figure is had, as clearly indicated in Figure 3 of the drawings. The right foot will then be elevated to swing forwardly and the reverse action will take place so that the figure will function very much after the manner of a person in walking in that the body will have a slight lateral swing and a slight forward swing, as indicated by the full lines and dotted lines in Figure 2 of the drawings, causing the center of gravity of the body to shift and be supported on the respective feet, as is the case of the human in a walking operation.

The figure therefore has a very distinct movement at each step. First, the free foot will swing forwardly as the body is drawn forwardly, shifting its center of gravity, and as the body is supported on the forwardly movable foot, the flat inclined plane of the foot will cause the body to shift laterally,

this being augmented or accomplished by the fact that the arms are fixed to the body and are weighted so that when the center of gravity is shifted these weighted arms will cause the body to shift from one position to another.

The contour of the feet is important in impelling the latter to swing freely in accordance with the lateral shift of the center of gravity of the figure; the heel weights assure a forward swinging movement of the feet when free, and the forward lateral movement of the body is insured by the pull on the body and by the weighted arms as above explained.

Various changes and alterations might be made in the general form of the parts described without departing from my invention and hence I do not limit myself to the precise details set forth but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. A walking toy, comprising a pair of independently swinging legs, feet at the lower ends of the legs having bottoms consisting of plane surfaces inclined transversely and heavier at their rear portions than at their front portions, a body pivotally connected to the axis of the legs, and weighted arms rigidly connected to the body.

2. A walking toy, comprising a pair of independently swinging legs, feet at the lower ends of the legs having bottoms consisting of plane surfaces inclined transversely and heavier at their rear portions than at their front portions, a body pivotally connected to the legs, and arms rigidly connected to the body, said arms extending below said axis and weighted at their lower ends.

3. A walking toy, comprising a pair of independently swinging legs, feet at the lower ends of the legs having bottoms consisting of plane surfaces inclined transversely and heavier at their rear portions than at their front portions, a body pivotally connected to the axis of the legs, and arms rigidly connected to the body, and a flexible connecting device connected to the toy adjacent its axis and adapted to be drawn forwardly to cause the toy to walk on a horizontal plane.

4. A toy of the character described, comprising a body portion, a pair of laterally and downwardly projecting weighted arms fixed to the body portion, a depending lug on each arm, a rod projected through said lugs and through the body portion, a pair of legs pivotally supported on the rod, feet at the lower ends of the legs having bottoms consisting of plane surfaces inclined transversely, widest at their intermediate portions and at their inner edges tapering from their widest portions toward both ends, and weights on the

rear ends of the feet rendering said feet heavier at their rear ends than at their forward ends.

5 5. A toy of the character described comprising a body portion, a pair of laterally and downwardly projecting weighted arms fixed to the body and extending to a plane below the body, a pair of legs pivotally connected to the body, and feet at the lower ends of the
10 legs having bottoms consisting of plane surfaces inclined transversely, widest at their intermediate portions, and at the inner edges tapering from their widest portions toward both ends, and weights on the rear ends of
15 the feet rendering said feet heavier at their rear ends than at their forward ends.

JOHN H. VAN DEVENTER.

20

25

30

35

40

45

50

55

60

65