Dec. 13, 1927. 1,652,182

S. D. PARTIN

COMBINED WALKING AND ROCKING TOY

Filed April 30, 1925 2 Sheets-Sheet 1

Fig. 1.

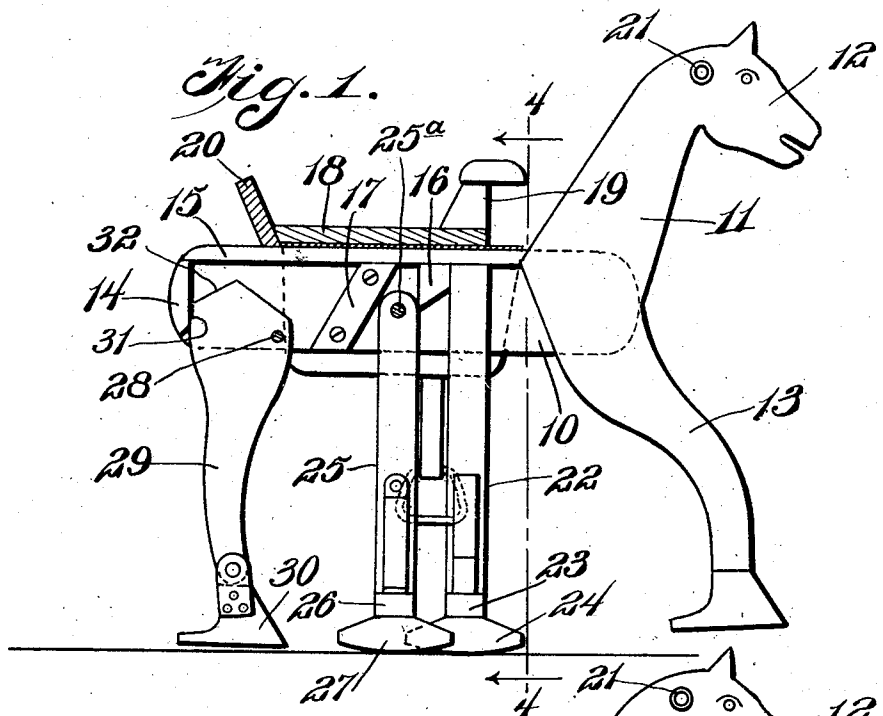
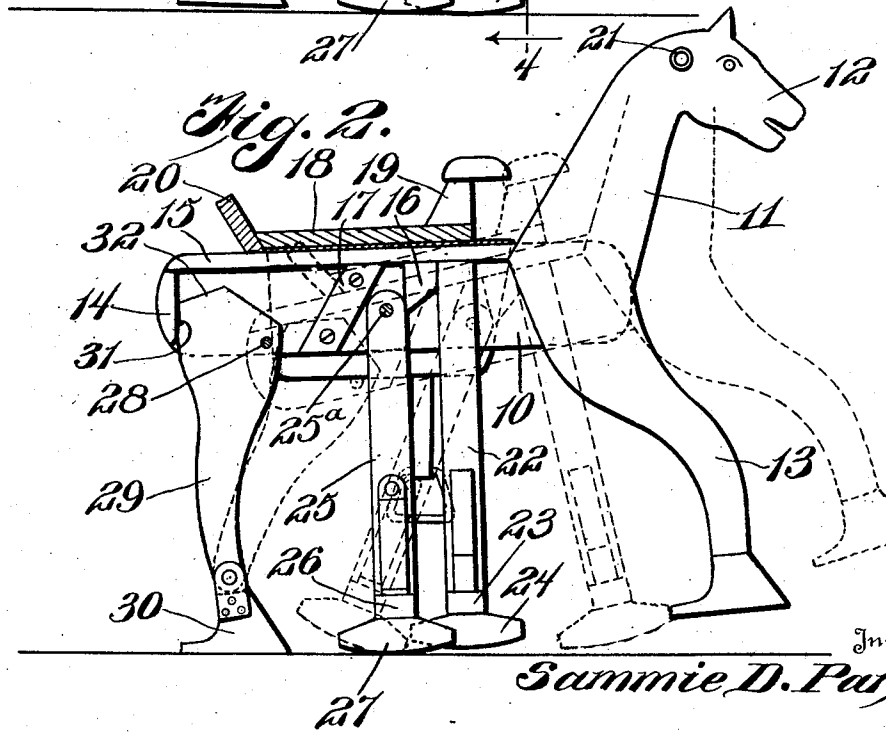


Fig. 2.



Inventor

Sammie D. Partin

By Watson E. Coleman

Attorney

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2 Sheets-Sheet 2

Fig. 3.

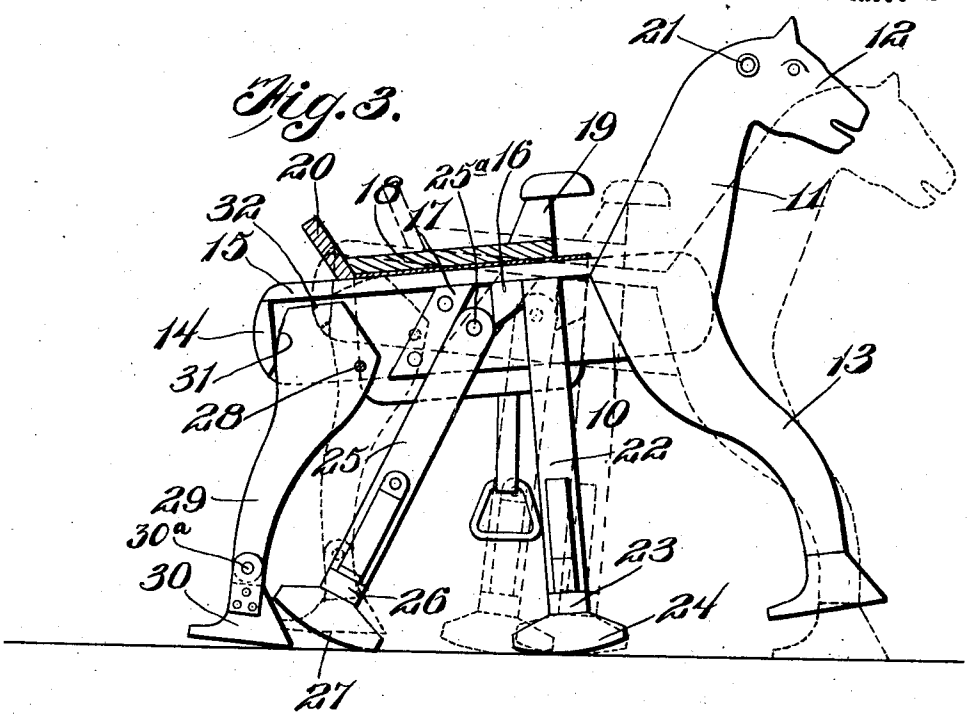
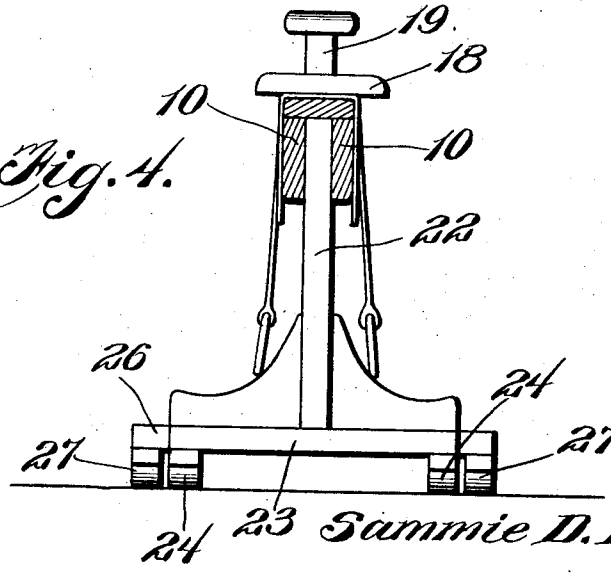


Fig. 4.



Inventor

Sammie D. Partin

By Watson E. Coleman

Attorney

Patented Dec. 13, 1927. 1,652,182

UNITED STATES PATENT OFFICE.

SAMMIE D. PARTIN, OF TEAGUE, TEXAS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO NAT WOLF.

COMBINED WALKING AND ROCKING TOY.

Application filed April 30, 1925. Serial No. 27,103.

This invention relates to a combined walking and rocking toy and has for an important object thereof the provision of a novel construction of a toy of this character.

An important feature of the invention is the provision of a four legged toy, two of the legs being arranged centrally of the length of the toy and two at the ends thereof. Of each of these pairs of legs, one is pivoted, the pivoted legs being arranged at the same end of the body and one of the pivoted legs acting as a pry or stilt shifting the body so that it advances.

A further object of the invention is to provide a device of this character such that tilting of the body longitudinally is positively limited, thereby preventing upsetting thereof when violently rocked.

A further object of the invention is to provide a device of this character which may be very cheaply and readily produced and which will be durable and efficient in service.

These and other objects I attain by the construction shown in the accompanying drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

Figure 1 is a side elevation partially in section of a rocking and walking toy constructed in accordance with my invention illustrating the neutral position of the parts preparatory to a stride;

Figure 2 is a similar view in which the first step toward the stride is illustrated in solid lines and the second step in dotted lines;

Figure 3 is a similar view illustrating the final step of the stride in solid lines; and in dotted lines indicating the position of the various parts of the toy when the toy is at the forward limit of its movement;

Figure 4 is a transverse sectional view through the device on the line 4—4 of Figure 1.

Referring now more particularly to the drawings, the toy includes a body having spaced side members 10 between which are arranged at the forward end of the body a neck 11 for the support of a head 12 and the upper end of a front leg 13. At its rear end, the walls 10 of the body are maintained in spaced relation by spacing and limiting blocks 14, 15, and at their center, they are maintained in spaced relation by other spacing and limiting blocks 16 and 17. The spacing blocks 16 and 17 are preferably arranged at opposite sides of the longitudinal center of the body. The upper surface of the body has arranged thereon a seat 18 having at its forward and rear ends limiting elements 19 and 20, preventing shifting of the occupant of the seat. The front limiting member 19 is preferably arranged but slightly in advance of the longitudinal center of the body so that the weight of the occupant is normally disposed slightly to the rear of such center. The head 12 has directed therethrough a hand grip 21 to be engaged by the hands of the occupant. Secured to the body intermediate the side members 10 and immediately in advance of the spacing block 16 is a vertically extending leg 22, the lower end of which has secured thereto a suitably braced cross bar 23. To the ends of this cross bar are secured short rockers 24. Pivoted at its upper end between the combined spacing and stop blocks 16 and 17 is a third leg 25, the pivot of which is so arranged that movement of the leg 25 is limited in its movement toward the front end of the body when this leg is substantially parallel to the leg 22. The lower end of the pivoted leg 25 has a cross bar 26 similar to the cross bar 23 of the leg 22 but so arranged that the rockers 27 thereof will clear the rockers 24 of the leg 22 during shifting movements of the leg 25. The block 17 serves as a limit of movement of the body with relation to the leg 25, as will hereinafter more fully appear. The rockers of the leg 25 are curved with the pivot 25^a as a center of curvature.

Pivoted adjacent its forward edge to the body, as at 28, is a rear leg 29 having at its lower end a pivoted foot 30 the pivot 30^a of which forms the operative point of engagement of the leg with the ground. It will, of course, be understood that the leg 29 could be continued to directly engage the ground instead of being provided with a pivoted foot but the construction illustrated is preferred for the reason that a smoother and quieter operation of the toy is provided by the use of the pivoted foot. This leg has a face 31 engaging the rear stop block 14 and limiting forward movement of the lower end of this leg at a time when the foot thereof still lies rearwardly of the pivoted point 28. Relative movement of the body and leg during the

time when the lower end of the leg 29 is moving rearwardly with relation to the body is limited by engagement of a face 32 formed on the upper end of the leg with the under surface of the stop and spacing block 15. In constructing the legs, the effective length of the legs 22 and 25 when vertically disposed and when the body is horizontal is made equal while the legs 13 and 29 are shortened so that but one of the legs 13 or 29 can be in engagement with the ground at a time.

Assuming the body to be substantially horizontally disposed as it is at the forward limit of rocking movement, the position assumed by the parts is as shown in dotted lines in Figure 3. In this figure, it will be noted that the rockers 24 of the legs 22 and the front leg 13 are engaged with the ground. Due to the fact that the body is slightly inclined forwardly, the lower ends of both legs 25 and 29 move to their forward limits. As the occupant rocks back in the seat, at the same time pulling up on the hand grips 21, the weight is thrown rearwardly with the result that the body rocks rearwardly upon the rockers 24 as a center until the rockers 27 are engaged with the ground and then rearwardly upon the rockers 27 until the foot 30 comes into engagement with the ground, as shown in Figure 2.

Attention is directed to the fact that the actual engagement of the foot 30 with the ground is at a point such that the pivot 30^a forming the effective point of engagement of the foot is spaced rearwardly longitudinally of the body from the pivot of the leg 29 and accordingly this leg acts as a pry during continued pressure on the body tending to rock the body rearwardly so that the body moves forward, rocking upon the rockers 27 as a pivot at the same time swinging about the pivot 25^a of the leg 25. This causes the legs 13 and 22 which are at this time elevated from the ground to be advanced longitudinally and this advance continues until the face 32 of the leg 29 comes into engagement with the coacting face of the stop block 15 to afford a positive limit to the application of downward and rearward pressure. At this time, the parts are in the dotted position in Figure 2 and the direction of rocking is now reversed and pressure applied against the hand grips 21. Since the pivot of the leg 25 has been shifted from a point vertically rearwardly of the rockers 27 to a point forwardly of this rocker, the forward rocking movement will cause a further forward movement of the body until the leg 22 comes into engagement with the ground. The body then rocks upon the rocker 24 as a center until the foot of the leg 13 comes into engagement with the ground to check this movement, thus completing the cycle of operation. The pivoting of the foot 30 permits flat engagement of this foot with the floor or ground during the movements of the leg 29 and prevents scraping movements of this foot over the floor during the respective movements of the body.

The use of the leg 29 as a pry or pushing element for shifting the body longitudinally provides a relatively long stride in the walking action of the feet. It will be obvious that the structure employed is capable of a certain range of change and modification without materially departing from the spirit of my invention and I accordingly do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

1. A toy comprising a body provided with two pairs of legs, one pair being arranged substantially centrally of the body, the other pair being arranged at opposite ends of the body, one leg of each pair being pivoted to the body to admit of limited movement of the lower end of the leg with respect to the body, the legs of the first named pair being longer than the legs of the last named pair, the pivoted leg of the last named pair being arranged at the same end of the body as the pivoted leg of the first named pair and having the pivot thereof arranged in advance of the effective ground engaging portion thereof at all times.

2. A toy comprising a body provided with two pairs of legs, one pair being arranged substantially centrally of the body, the other pair being arranged at opposite ends of the body, one leg of each pair being pivoted to the body to admit of limited movement of the lower end of the leg with respect to the body, the legs of the first named pair being longer than the legs of the last named pair, the pivoted leg of the last named pair being arranged at the same end of the body as the pivoted leg of the first named pair and having the pivot thereof arranged in advance of the effective ground engaging portion thereof at all times, the pivot of the movable leg of the second named pair being longitudinally at that side of the ground engaging portion of such leg next adjacent the movable leg of the other pair when the ground engaging portion of such movable leg is primarily brought into engagement with the ground.

3. A toy comprising a body provided with two pairs of legs, one pair being arranged substantially centrally of the body, the other pair being arranged at opposite ends of the body, one leg of each pair being pivoted to the body to admit of limited movement of the lower end of the leg with respect to the body, the legs of the first named pair being longer than the legs of the last named pair, the pivoted leg of the last named pair being arranged at the same end of the body as the pivoted leg of the first named pair and

having the pivot thereof arranged in advance of the effective ground engaging portion thereof at all times, and a seat arranged upon the body to enable the occupant thereof to transfer his weight from one end to the other of the body with respect to the first named pair of legs whereby said first named pair of legs may alternately act as pivots for the body.

4. A toy comprising a body provided with two pairs of legs, one pair being arranged substantially centrally of the body, the other pair being arranged at opposite ends of the body, one leg of each pair being pivoted to the body to admit of limited movement of the lower end of the leg with respect to the body, the legs of the first named pair being longer than the legs of the last named pair, the pivoted leg of the last named pair being arranged at the same end of the body as the pivoted leg of the first named pair and having the pivot thereof arranged in advance of the effective ground engaging portion thereof at all times, and a seat arranged upon the body to enable the occupant thereof to transfer his weight from one end to the other of the body with respect to the first named pair of legs whereby said first named pair of legs may alternately act as pivots for the body, the stationary leg of the last named pair acting as a check to forward rocking movement of the body when the adjacent stationary leg of the first named pair is in use as a pivot, the pivoted leg of the last named pair acting as a stop to check rearward rocking of the body when the movable leg of the first named pair forms the pivot of the body.

5. A toy comprising a body provided with two pairs of legs, one pair being arranged substantially centrally of the body, the other pair being arranged at opposite ends of the body, one leg of each pair being pivoted to the body to admit of limited movement of the lower end of the leg with respect to the body, the legs of the first named pair being longer than the legs of the last named pair, the pivoted leg of the last named pair being arranged at the same end of the body as the pivoted leg of the first named pair and having the pivot thereof arranged in advance of the effective ground engaging portion thereof at all times, and a seat arranged upon the body, the stationary leg of the last named pair acting as a check to forward rocking movement of the body when the adjacent stationary leg of the first named pair is in use as a pivot, the pivoted leg of the last named pair acting as a stop to check rearward rocking of the body when the movable leg of the first named pair forms the pivot of the body, and engaging the ground with its free end prior to such checking movement whereby the pivoted leg of the last named pair acts as a pry between the period of its engagement with the ground and at the time of its checking movement of the body to shift the body longitudinally upon the movable leg of the first named pairs of pivots.

6. A toy comprising a body provided with two pairs of legs, one pair being arranged substantially centrally of the body, the other pair being arranged at opposite ends of the body, one leg of each pair being pivoted to the body to admit of limited movement of the lower end of the leg with respect to the body, the legs of the first named pair being longer than the legs of the last named pair, the pivoted leg of the last named pair being arranged at the same end of the body as the pivoted leg of the first named pair and having the pivot thereof arranged in advance of the effective ground engaging portion thereof at all times, and a seat arranged upon the body, the stationary leg of the last named pair acting as a check to forward rocking movement of the body when the adjacent stationary leg of the first named pair is in use as a pivot, the pivoted leg of the last named pair acting as a stop to check rearward rocking of the body when the movable leg of the first named pair forms the pivot of the body and engaging the ground with its free end prior to such checking movement whereby the pivoted leg of the last named pair acts as a pry between the period of its engagement with the ground and at the time of its checking movement of the body to shift the body longitudinally upon the movable leg of the first named pairs of pivots, said movable leg of the last named pair having a pivoted foot whereby to maintain a solid engagement with the ground during its operation as a pry.

7. A toy comprising a body provided with two pairs of legs, one pair being arranged substantially centrally of the body, the other pair being arranged at opposite ends of the body, one leg of each pair being pivoted to the body to admit of limited movement of the lower end of the leg with respect to the body, the legs of the first named pair being longer than the legs of the last named pair, the pivoted leg of the last named pair being arranged at the same end of the body as the pivoted leg of the first named pair and having the pivot thereof arranged in advance of the effective ground engaging portion thereof at all times, the pivot of the movable leg of the second named pair being longitudinally at that side of the ground engaging portion of such leg next adjacent the movable leg of the other pair when the ground engaging portion of such movable leg is primarily brought into engagement with the ground, the lower ends of the legs of the first named pair having rocker bottoms, the lower end of the movable leg of the other pair having a pivoted foot.

8. A toy comprising a body provided with two pairs of legs, one pair being arranged substantially centrally of the body, the other pair being arranged at opposite ends of the body, one leg of each pair being pivoted to the body to admit of limited movement of the lower end of the leg with respect to the body, the legs of the first named pair being longer than the legs of the last named pair, the pivoted leg of the last named pair being arranged at the same end of the body as the pivoted leg of the first named pair and having the pivot thereof arranged in advance of the effective ground engaging portion thereof at all times, the lower ends of the legs of the first named pair having rocker bottoms, the lower end of the movable leg of the other pair having a pivoted foot the pivot of which forms said effective ground engaging portion.

9. A toy comprising a body having two pairs of legs, one pair being arranged substantially centrally of the body, the other pair being arranged at opposite ends of said body, one leg of each pair being pivoted to the body, the legs of the first named pair being longer than the legs of the other pair so that a walking action of said legs is effected solely by a rocking action of said body.

In testimony whereof I hereunto affix my signature.

SAMMIE D. PARTIN.