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MECHANICAL WALKING ANIMAL

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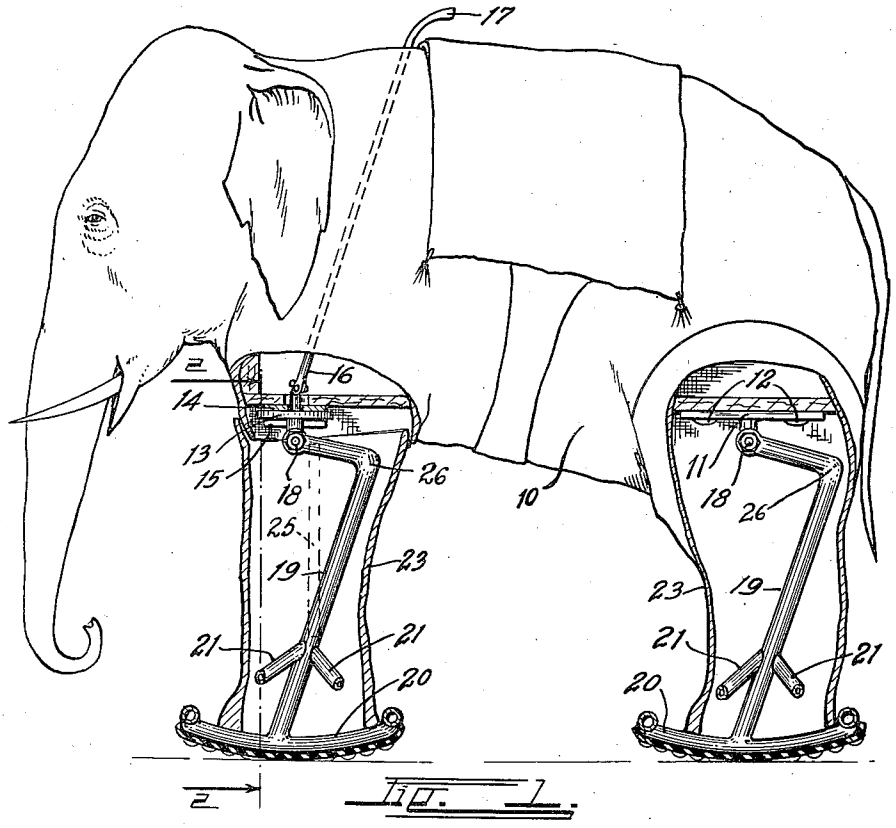


Fig. 1.

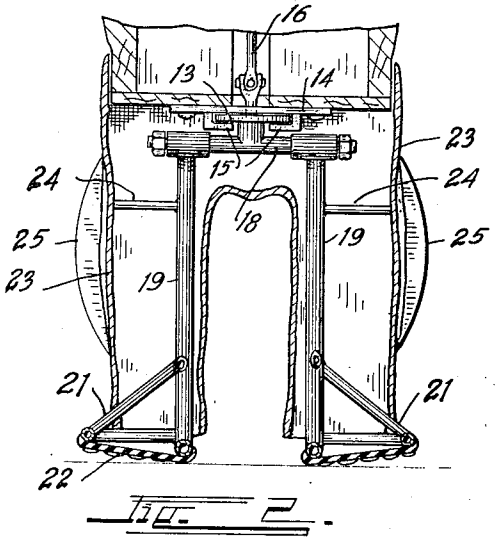


Fig. 2.

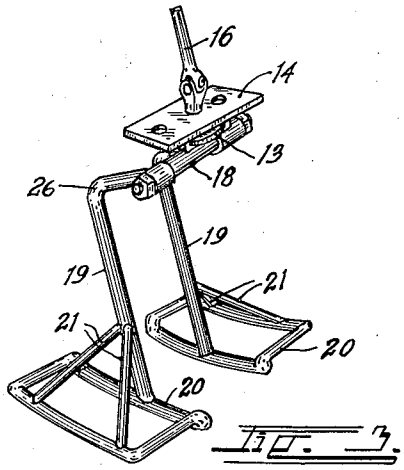


Fig. 3.

INVENTOR.
AVERILL M. BENNETT.

BY

ATTORNEY.

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MECHANICAL WALKING ANIMAL

Averill M. Bennett, Lusk, Wyo.

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3 Claims. (Cl. 272—53)

This invention relates to a mechanical walking animal and has for its principal object the provision of a device simulating an animal of any desired kind and so constructed that a rider can mount the animal and by rocking it from side to side cause its legs to swing forwardly and back in a walking motion which will carry the rider and the animal forwardly.

The device can, of course, be made in any desired size, such as a small toy which can be drawn with a leash or a full sized animal which can actually be ridden.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a side elevation of the invention incorporated in a body simulating an elephant. In this view, the body has been partially broken away to show the internal leg construction.

Fig. 2 is a vertical cross section through the front legs of the animal, taken on the line 2—2, Fig. 1.

Fig. 3 is a detail perspective view illustrating the leg frame structure.

The invention is designed to support a body 10 of any type. As illustrated, the body portion is made in the shape of an elephant.

A rear bearing plate 11 is secured beneath the rear portion of the body 10 in any desired manner such as by means of suitable screws 12. A front bearing plate 13 is rotatably mounted in a stationary bracket plate 14, the latter being fixedly secured beneath the forward portion of the body 10. The bearing plate 13 is circular and is held in place on the bracket plate by means of a flanged peripheral edge 15 about the latter. A steering post 16 is fixedly and concentrically secured to the bearing plate 13 and extends upwardly through the body 10 terminating in a suitable steering handle 17 within convenient reach of a rider.

Each of the bearing plates 11 and 13 carries a horizontal leg shaft 18 from each extremity of each of which a leg member 19 depends.

In their normal depending position, the leg members 19 extend first rearwardly and downwardly from the shafts 18 on a gradual incline thence turn forwardly and downwardly on a relatively steep incline, forming an elbow 26, to a point slightly forward of the axis of the shafts 18, as illustrated.

Each leg member is secured at its lower extremity to the inner edge of a foot frame 20, the outer edge of which is braced from the foot member by means of suitable angle braces 21. The foot frames 20 are arcuately curved on a radius about the axis of the shafts 18 and each is covered on the bottom by means of a suitable pad 22. The bottoms of the foot frames and their pads 22 incline upwardly toward the outside, as shown in Fig. 2, so that, when the body is vertical, the weight thereof will rest along the inner edges of all the foot pads.

The leg members are preferably surrounded and concealed by a shell 23 having the appearance and contour of the animal's leg. The shell could be filled with suitable packing to maintain it in place about the leg member or it may be braced therefrom by means of brace members 24 as indicated in Fig. 2.

When used for actual riding, the rider mounts the body and tilts it alternately to the left and right. When tilted to the left, the outer edges of the left foot frames swing downward into contact with the ground so that the entire weight rests on the two left feet and the right feet are lifted from the ground. The body now moves forward, rolling on the left feet, until the elbows of the leg members strike the bearing plates 11 and 13. This arrests further forward movement and causes the right legs to swing forward of their own momentum. The body is now tilted to the right to bring the two right feet flat on the ground and lift the left feet. The body now rolls forward on the right feet until stopped by the elbows and the process is repeated. In this way the rider can travel forwardly on the animal simulating the natural walking gate thereof.

The direction of travel can be controlled by means of the steering handle 17, rotation of which changes the direction of swing of the two front leg members.

Projecting plates 25 may be provided on the two front legs which can be engaged by the rider's feet to control the movements of the two front leg members and thereby control the various movements of the animal.

The specific angular construction of the leg members as above described accomplishes results which could not be attained if the leg members were extended directly downward to the feet. First: The specific angular formation of

the metal leg places all of the weight of the leg structure to the rear of the vertical axis to provide an unbalanced condition which will swing the foot forward of the axis the instant it is released from contact with the ground. Second: This construction provides a positive seat upon which the body comes to rest at the forward limit of its movement to positively prevent falling forward.

While a specific form of the improvement has been described and illustrated herein, it is desired to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired secured by Letters Patent is:

1. A toy walking animal comprising: a body portion; a front bearing member; a rear bearing member, said bearing members being secured to the front and rear bottoms of said body member; a horizontal shaft extending through each bearing member, said shafts being parallel to each other and at right angles to the axis of the body; a leg member depending from each extremity of each shaft, each of said leg members extending first horizontally rearward from its shaft thence forwardly and downwardly; and an arcuate foot on the lower extremity of each leg member curvated on a radius about the axis of said shaft, the horizontal portions of the leg members acting to limit their rearward swing.

2. A mechanical walking animal comprising: a body portion; a bearing plate secured beneath the rear of said body portion; a second bearing plate pivotally mounted beneath the front of said body portion; a pair of legs hingedly depending from each bearing plate; an arcuate foot carried by each leg member curved on an arc about the axis of its hinge; means for limiting the rearward swing of said leg members; and means for rotating the pivoted second bearing plate to guide the direction of travel of said animal.

3. A mechanical walking animal comprising: a body portion; a bearing plate secured beneath the rear of said body portion; a second bearing plate pivotally mounted beneath the front of said body portion; a pair of legs hingedly depending from each bearing plate; an arcuate foot carried by each leg member curved on an arc about the axis of its hinge; and a steering handle extending upward through the body portion for rotating the pivoted second bearing plate to guide the direction of travel of said animal.

AVERILL M. BENNETT.