Nov. 17, 1925. 1,561,639

E. C. M. EDGAR

ANIMAL TOY

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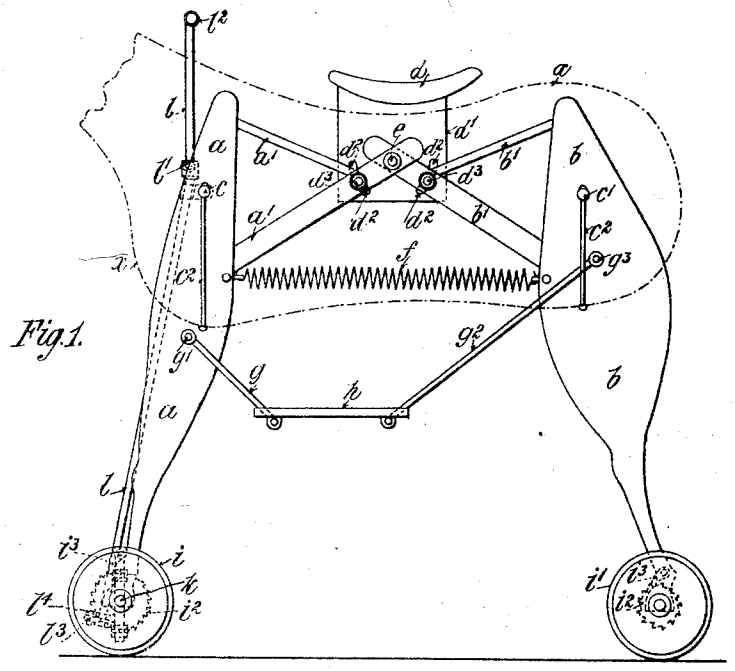


Fig. 1.

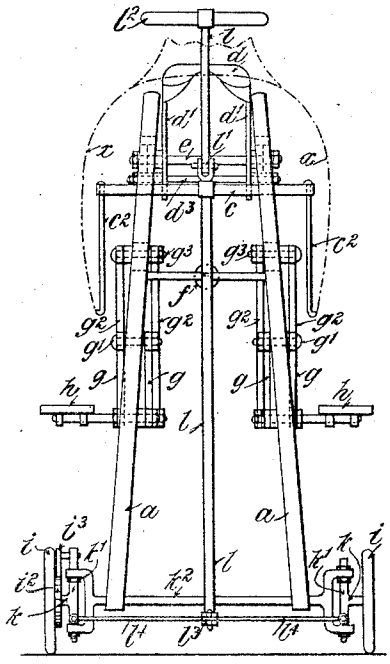


Fig. 2.

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UNITED STATES PATENT OFFICE.

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ANIMAL TOY.

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To all whom it may concern:

Be it known that I, EVA CONSTANCE MACNAB EDGAR, a subject of the King of Great Britain, residing at 3 Staff Quarters, Brompton Barracks, Chatham, Kent, England, have invented Improvements in Animal Toys, of which the following is a specification.

This invention relates to improvements in toys of the form of movable animals propelled by their rider and relates more particularly to movable horses of that type in which the front legs and back legs are formed as separate units pivoted together at their upper ends. The legs are provided with wheels which can only rotate in a forward direction. The propulsion of the animal is caused in an intermittent manner by the action of the rider alternately transferring his weight from the saddle to the stirrups or feet supporting members.

The present invention has for its primary object the general improvement of this type of movable animal, more particularly the improvement of the propulsive mechanism.

The present invention comprises essentially a pair of front legs and a pair of rear legs, each carried by a pair of triangular shaped frames, transverse axles on which the legs pivot, a saddle frame pivoted on a transverse axle connecting together the adjacent apices of the triangles of the leg frames, one or more springs acting between the front and rear legs so as to cause them to approach each other, a body part with attached head enveloping the upper part of the leg frames and carried by the transverse axles, links pivoted to the front and rear legs and to foot rests in such manner that depression of the foot rests draws the legs together, wheels carried on the lower ends of the legs, means for preventing said wheels rotating in a backward direction and a steering handle or bar carried by a post through the body connected with means for steering the toy.

This invention will be now more particularly described making reference to the accompanying drawing in which:—

Fig. 1 is a part view in side elevation of a toy horse constructed according to the present invention, and

Fig. 2 is a view in end elevation thereof.

Throughout both views similiar parts are marked with like letters of reference.

A pair of front legs a and a pair of rear legs b, each carried by or formed with a pair of triangular shaped frames a^1 b^1 are pivoted on transverse axles c, c^1 near their upper ends. A saddle d is carried by a frame d^1, the lower part of which is pivoted on a transverse axle e connecting together the adjacent apices of the triangles of the leg frames a^1, b^1. Suitable stops for limiting the upward and downward movements of the saddle frame are provided, a convenient arrangement being to form slots d^2 in the frame through which engage fixed transverse bars d^3. A spring f (or springs) acting between the front and rear legs is arranged so as to cause them to approach each other. A body part x—shown in dot and dash lines—with attached head enveloping the upper parts of the legs and mechanism is carried or suspended by rods c^2 attached to the ends of the transverse axles c, c^1. A pair of links g, one for each fore leg a is pivoted at g^1 thereto and to stirrups or foot rests h. A similar but longer pair of links g^2 is pivoted at g^3 to each rear leg b and to the opposite ends of the foot rests h. The arrangement of links and foot rests being such that the action of depressing the stirrups or foot rests h will tend to draw the legs a and b together. On the lower ends of each of the legs a and b are carried wheels i, i^1 provided with means for preventing said wheels from rotating in a backward direction. A convenient means for effecting this is to furnish one or both pairs of front and rear wheels with a ratchet wheel i^2 adapted to be engaged by a pivoted pawl i^3 carried on a fixed part. A vertical steering post or its equivalent is carried rotatably between the front legs so as to move angularly a front wheel, preferably the front pair of wheels, and a steering handle or bar projecting through the body part and connected to the top of the steering post by an articulating or universal joint which is situated in approximately the same plane as the fixed transverse axle c on which the front legs pivot.

The preferred steering arrangement is that illustrated in which the front pair of wheels i are carried on stud axles k, each of which are carried by a vertical head k^1 angularly movable in bearings which are formed in the forked extremities of a fixed axle k^2 to which the front legs a

are fixed. The vertical steering post l is rotatably carried between the front legs and through the body part and is provided with an articulating joint l^1 adjacent to the axle c. The upper end of the post l terminates in a steering handle l^2, whilst the lower extremity carries an arm l^3 to which is pivoted a connecting rod l^4, the ends of which are pivoted to arms on the heads k^1.

The axles c, c^1 may be fixed relatively to one another, in which case the ends of the frames a^1, b^1 where they pivot on the axle e are slotted to allow of the necessary movement.

In operation, on depressing the saddle d, the lower ends of the front legs a are moved forwardly against the action of the spring f, and the stirrups or foot rests h are raised. Now since the wheels i can only move in a forward direction, the back legs b remain stationary. On removing the weight off the saddle d, it rises and the spring f draws the back legs b forward, whilst the front legs a remain stationary. This action is helped by depressing the foot rests h. Steering is effected by angularly turning the steering post l which is unaffected by the movement of the front legs a.

I declare that what I claim and desire to secure by Letters Patent is:—

1. An animal toy comprising a pair of front legs and a pair of rear legs, each carried by a pair of triangular shaped frames, transverse shafts on which the legs pivot, a saddle frame pivoted on a transverse shaft connecting together the adjacent apices of the triangles of the leg frames, springs acting between the front and rear legs so as to cause them to approach each other, a body part with attached head enveloping the upper part of the leg frames and carried by the transverse shafts, links pivoted to the front and rear legs and to foot rests in such manner that depression of the foot rests draws the legs together, wheels carried on the lower ends of the legs, means for preventing said wheels rotating in a backward direction and a steering handle carried by a post passing through the body and connected with means for steering the toy, as set forth.

2. An animal toy comprising a pair of front legs and a pair of rear legs, each carried by a pair of triangular shaped frames, transverse shafts on which the legs pivot near their upper ends, a saddle carried on a vertically movable frame, the lower part of which is pivoted on a transverse shaft connecting together the adjacent apices of the triangles of the leg frames, stops for limiting the upward and downward movements of the saddle frame, a spring acting between the front and rear legs so as to cause them to approach each other, a body part with attached head enveloping the upper parts of the legs and suspended by links from the ends of the transverse shafts, two or more links on each side pivoted together and to the front and rear legs and connecting the legs together, foot rests carried by said links so that the action of depressing them will tend to draw the legs together, a pair of wheels carried on the lower ends of the rear legs, a pair of wheels carried on stud shafts pivoted to a fixed shaft to which the front legs are attached, means for preventing the wheels from rotating in a backward direction, an articulated vertical steering post carried rotatably between the front legs, a steering handle carried on the upper end of the steering post and connecting means between the steering post and the front wheels allowing them to be moved angularly in unison for steering the toy, as set forth.

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