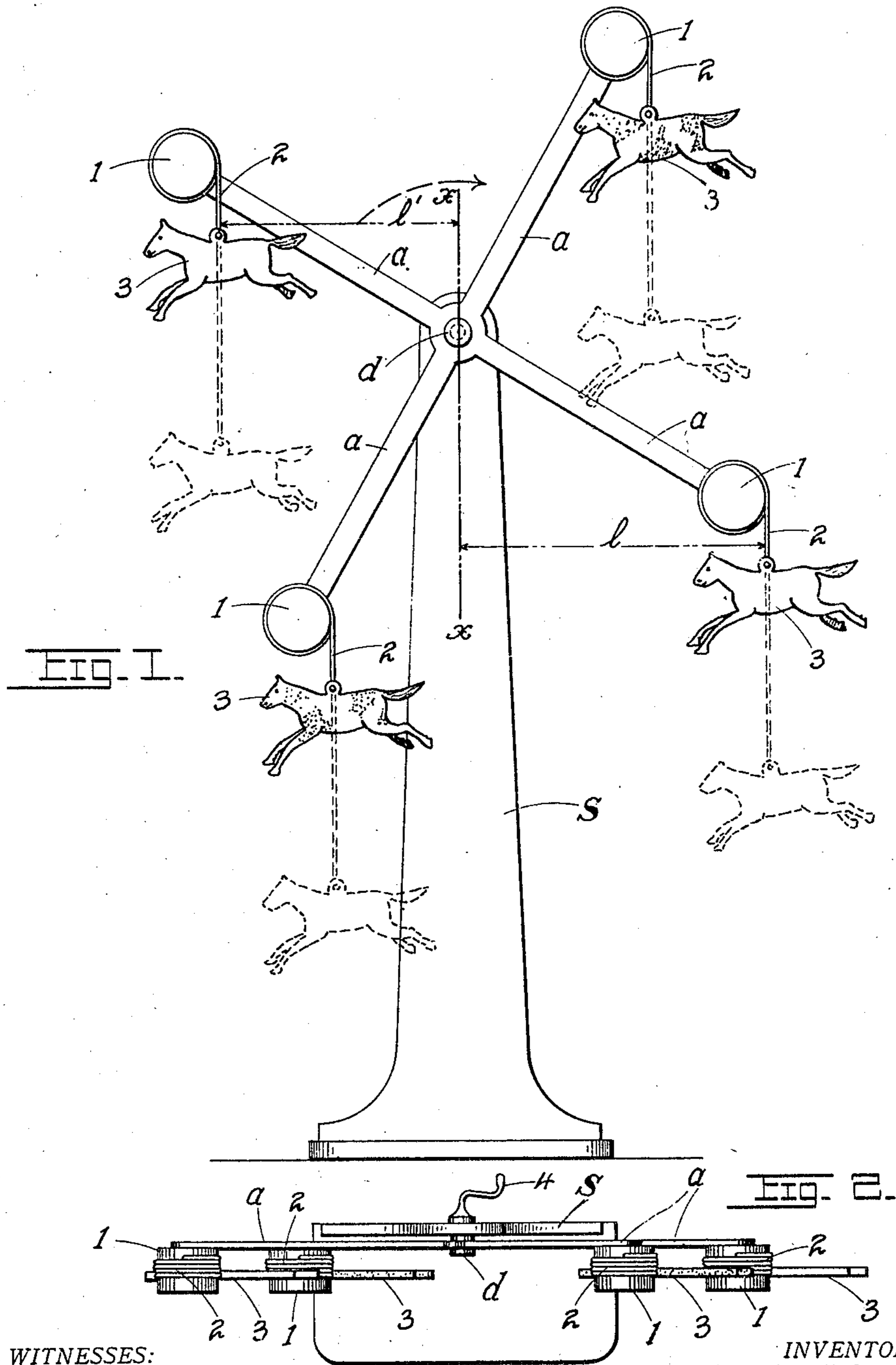


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PATENTED NOV. 19, 1907.

C. H. FOSTER.
TOY AND OTHER DEVICE.
APPLICATION FILED FEB. 2, 1907.



WITNESSES:

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TOY AND OTHER DEVICE.

No. 871,264.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES H. FOSTER, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Toys and other Devices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in toys, and it consists in the novel construction of toy more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a front elevation of the invention, and Fig. 2 is a top plan thereof.

The present invention belongs to a class of gravity-operated toys or other devices and has for its object to provide a rotatable member or frame with a series of weights or figures suspended on said member at different lever-arm lengths from the axis of rotation thereof, whereby the weights suspended from the longer lever-arms will overbalance those suspended from the shorter lever-arms and thus serve as propelling means for the frame. The manner of effecting the suspension is by means of cords wound about suitable spindles, the windings being in the same direction for the several cords, whereby the variation in the lever-arms aforesaid is effected as will more fully appear from a detailed description of the invention which is as follows:

Referring to the drawings, S, represents a standard or support on top of which is mounted to rotate in a vertical plane, a frame or member preferably composed of a series of arms *a, a*, radiating from the shaft or spindle *d*. The rotating member or frame may however be a disk, or frame or any member capable of rotation about a shaft or axial spindle. To the ends of the arms are secured the laterally projecting spools or spindles 1, 1, over which are wound or wrapped in one direction the cords 2 from which are suspended suitable weights or ornamental figures 3, 3. The several cords being wrapped about the spools or spindles in the same direction it follows that the weights on one side will have their points of suspension from the axis of the rotation of the frame, a greater distance than those on the opposite side, the maximum difference in the lever-arm lengths of the suspended weights being

substantially the diameter of the spools or spindles 1.

In Fig. 1, the line *x—x* which passes through the center of moments or axis of rotation of the frame may be used as a base from which the lever-arms of the weights may be measured. Thus in said figure the lever-arm of the suspended lower right-hand weight is measured on the line *l*, whereas that of the upper left-hand weight is measured along the line *l'*, the difference between the lengths of the two lever-arms being substantially the diameter of the spool or spindle 1. To this difference in the lever-arms of the driving or suspended weights (which are substantially equal) is the impelling or driving power due; and the frame will rotate in the direction of the arrow in Fig. 1 until the cords are fully unwrapped. The same can be re-wrapped or wound up by a key or crank 4 engaging or secured to the rear end of the shaft *d*, by which the frame is rotated in the opposite direction, this motion causing the wrappings of the cords to resume their places on the spools 1. The dotted positions of the weights 3 and cords 2 show the latter partially unwrapped from the spools.

Having described my invention what I claim is:

1. A toy or other device comprising a member rotatable vertically about a fixed axis, a series of weights distributed on said member at unequal lever-arm lengths from said axis whereby initial rotation is imparted to the member, and means for varying the lever-arm lengths of the several weights after such initial rotation whereby a permanent inequality in said lengths is maintained and the rotation of the member made continuous.

2. A toy or other device comprising a vertically rotatable member, a series of formations thereon disposed about the center of rotation of said member, weighted cords wound in the same direction about said formations, and adapted to unwind under the action of the weights, the member having rotation imparted thereto during such unwinding.

3. A toy or other device comprising a rotatable member, a series of spindles projecting therefrom, cords wound about said spindles in the same direction, weights at the free ends of the cords, the latter being adapted to unwind under the action of the

weights, and the member having rotation imparted thereto during such unwinding.

4. A toy or other device comprising a rotatable member, a series of spindles disposed at equal radial distances thereon from the axis of rotation thereof, and cords carrying weights wound about said spindles in the same general direction, the member responding to the overbalancing action of that

portion of the weights suspended from the longer lever-arms.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. FOSTER.

Witnesses:

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