May 18, 1926. 1,584,979

W. C. CLAUSEN

GYROSCOPIC TOY

Filed June 3, 1925

Fig. 1

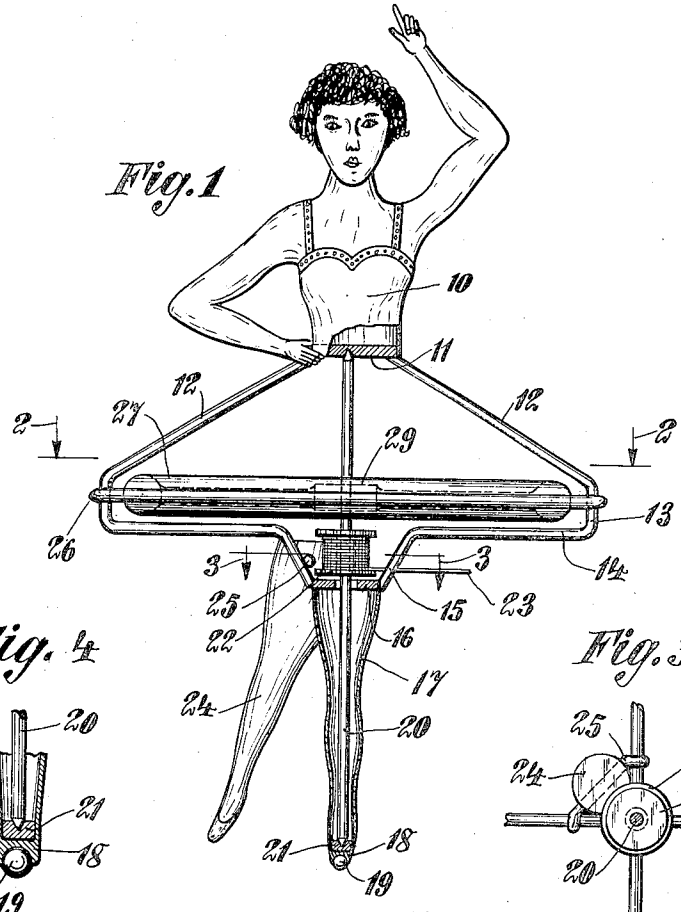
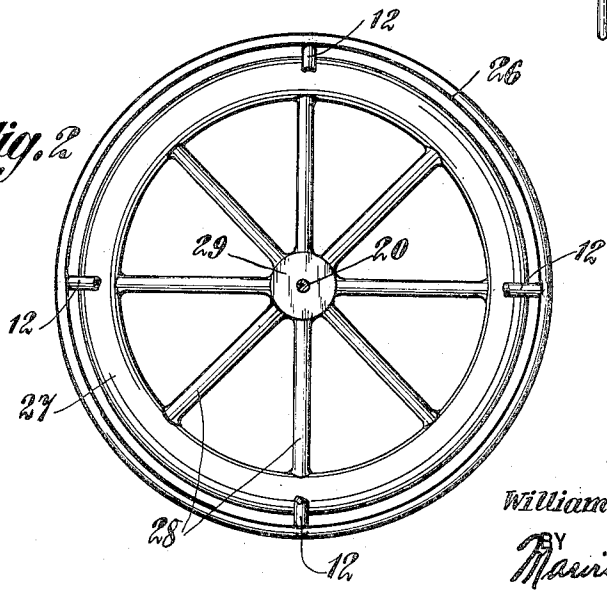


Fig. 4

Fig. 3

Fig. 2



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GYROSCOPIC TOY.

Application filed June 3, 1925. Serial No. 34,692.

This invention relates to toys and more particularly to movable figure toys in which the figure rotates upon a perpendicular axis.

One of the objects of the invention is to provide a toy in the form of a doll and having means whereby the figure is caused to rotate upon one of its lower limbs, the other being articulated to swing freely outward, giving the appearance of pirouetting.

A further feature is in the provision of a gyroscopic wheel having means for being spun at a high velocity whereby the toy is maintained upright and caused to revolve.

Another aim is in the provision of a simple, cheaply constructed toy, capable of pleasing performance and inculcating a practical knowledge of physical laws.

These and other like objects are attained by the novel construction and combination of parts hereinafter described and shown in the accompanying drawing, forming a material part of this disclosure and in which:—

Figure 1 is a front elevational view of a toy made in accordance with the invention, the view being partially in section to show the construction.

Figure 2 is a transverse sectional view taken on line 2—2 of Figure 1.

Figure 3 is a similar sectional view taken on line 3—3 of Figure 1.

Figure 4 is a fragmentary longitudinal sectional view taken through the right limb.

Referring more in detail to the drawing, the numeral 10 designates in general the upper body portion of the figure, including the bust, head and arms, and fixed in the lower portion of the hollow bust element is a plate 11.

Secured near the edges of the plate 11 are a plurality of wire rods 12, extending angularly outwardly and downwardly to parallel perpendicular elements 13 bent horizontally inward at 14 and then converging downward at 15 to a washer-like plate 16.

Fixed to extend below the plate 16 is a hollow leg 17 terminating in a shoe 18 at the point or toe of which is set a sphere 19 acting in the manner of a castor and being positioned directly under the center of gravity of the toy.

A vertical spindle 20, having bevelled pivotal ends, is extended between the body plate 11 and a seat 21 in the shoe 18 directly above the ball 19, the spindle passing freely through the plate 16.

Secured to the spindle 20, just above the washer plate 16, is a spool 22 on which is wound a cord 23, one end being attached to the spool and the other extending outward into a position convenient of access.

The other leg 24 is hingedly attached by a pivot 25 between two of the elements 14 in such manner as to swing outward as the toy is revolved as will be readily understood.

A rigid wire ring 26 is secured circumjacently the support elements 13 holding them in firm relation and acting as a guard for the rim of a wheel 27 having spokes 28 set in a hub 29 rigidly secured on the spindle or staff 20.

The rim 27 is preferably of cylindrical section, made of lead or other material of a heavy nature, so that when it is rapidly revolved to act as a gyroscope, its momentum maintaining the toy substantially erect, and is obviously actuated by giving the cord 23 a quick pull, transmitting motion to the spool and spindle carrying the wheel.

The friction of the wheel ends causes the toy to rotate, but at a much slower speed than the wheel, and thus motion is reduced due to the friction of the ball 19 on which the entire figure rotates in a manner like that of a common spinning top as long as the wheel retains its velocity.

Having thus described my invention and set forth the manner of its construction and operation, what I claim as new and desire to secure by Letters Patent, is:—

1. A figure toy comprising a body portion, a substantially conical wire frame on which the body portion is mounted, a leg extending rigidly below said frame, a sphere rotatably mounted in the extremity of said leg, a second leg mounted to move outward, a spindle extending through the rigid leg to the body, a gyroscopic wheel centered on said spindle above said rigid leg, and means for initially actuating said wheel to cause the entire structure to rotate.

2. The combination with a toy having a body, a fixed axial leg and a free swinging leg, of a spindle extending through the fixed leg to the body, a spool upon said spindle upon which a cord may be wound, a gyroscopic wheel on said spindle, and a guard for said wheel, said guard connecting the body with said rigid leg.

In witness whereof I have affixed my signature.

WILLIAM C. CLAUSEN.