Nov. 4, 1930. R. GUYOT 1,780,385

TOY

Filed July 30, 1929

FIG. 1.

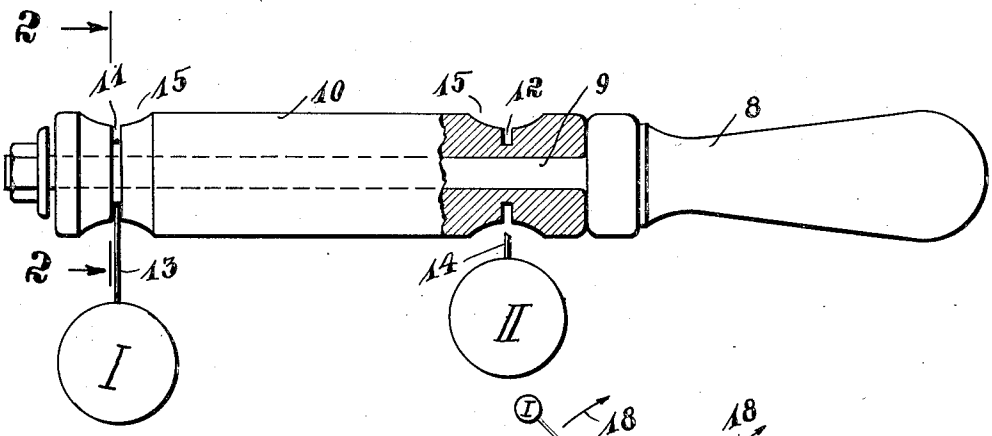


FIG. 2.

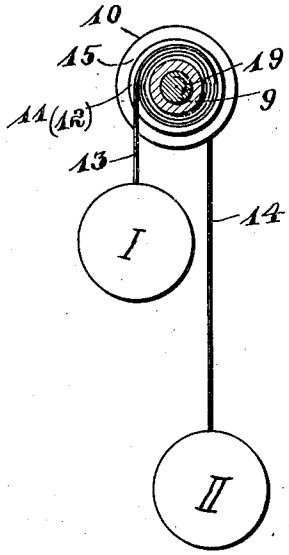


FIG. 3.

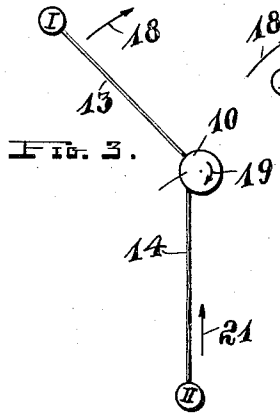


FIG. 4.

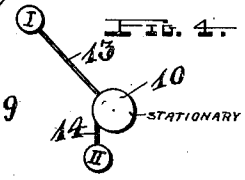


FIG. 6.

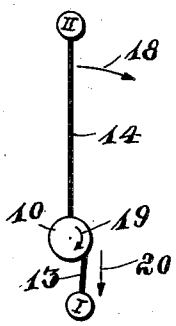


FIG. 5.

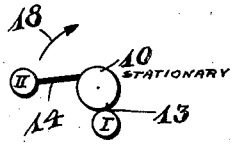
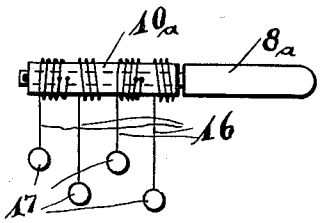


FIG. 7.



INVENTOR:
REINHARD GUYOT,
BY Allen H. Knight
his ATTORNEY.

Patented Nov. 4, 1930 1,780,385

UNITED STATES PATENT OFFICE

REINHARD GUYOT, OF LOS ANGELES, CALIFORNIA

TOY

Application filed July 30, 1929. Serial No. 382,113.

This invention relates to devices of which certain parts can be operated in a certain manner in form of a game or play.

One of the objects of this invention is to provide bodies in conjunction with flexible members wound over a movable part of a handle to be swung and rotated for playing purposes.

Another object is to provide bodies on flexible members in such a manner that one body can be operated either alone or with any number of other bodies.

Another object is to provide bodies on a handle member one movable by or with the others.

Another object is to provide a turning member on a handle with bodies on the turning member one movable by or with the other in conjunction with the turning member.

Another object is to provide bodies attached to a turning member on a handle by means of flexible members which can be wound or unwound by means of the attached bodies.

Another object is to provide a device with which a centrifugal or other force can be created or overcome by the force of a suitably arranged body on the device.

Other objects will appear from the following description and appended claims as well as from the accompanying drawing, in which—

Fig. 1 is a side elevation of a simple handle supporting a turnable member with grooved portions around which strings can be wound to support balls on the opposite sides of the turning member to operate according to this invention.

Fig. 2 is a cross section on line 2—2 of the device illustrated in Fig. 1, having bodies indicated as supported on strings wound around the rotating member in opposite directions.

Fig. 3 is a somewhat diagrammatical illustration in which the one body is indicated to swing in a certain direction and another body indicated to be drawn upwardly.

Fig. 4 is illustrating the central member in a stationary position or condition with one body drawn upwardly and another body in swinging condition by which the flexible member of this body is wound around the central member.

Fig. 5 illustrates body I with its string fully wound and body II with its string beginning to unwind.

Fig. 6 illustrates body II with its string fully unwound and body I with its string beginning to unwind by the action of body II and by the rotating function of the central body.

Fig. 7 is a side elevation of a simple device of a slightly modified form, in which the strings are wound over an ungrooved rotating member, to illustrate that any desired number of bodies attached to strings or other similar suitable flexible means can be used in conjunction with a rotating member on a handle.

As illustrated in the drawing, the handle 8, in the form illustrated in Fig. 1, is provided with a pin 9 on which the drum or elongated roller 10 is turnably mounted.

While the roller 10 in Fig. 1 is provided with narrow grooves 11 and 12 for the strings 13 and 14 and other comparatively shallow annular recesses 15 for the balls I and II; in the slightly modified form illustrated in Fig. 7 the roller 10_a is of a smooth cylindrical form with the flexible members 16 secured to and wound over the outside of the roller or rotating member 10_a, indicating also that any number of flexible members, of course with attached balls or bodies, can be used on one and the same rotating member in a toy of this type.

In using this device as a toy, of course, various rules can be followed, to result in different games or plays. One particular play may be said to be indicated by the illustrations in Figs. 3, 4, 5 and 6.

The bodies I and II may be of any suitable material and of any desired form or shape, as rubber balls.

Attaching a ball to a string, which in turn is attached to a roller such as is here indicated by the numeral 10, by swinging such a ball in a circle, it will easily be understood that a suitable centrifugal force can be produced to

rotate or turn the roller 10 around the pin 9 on the handle 8. Again, on the other hand, if the roller is held stationary by the same hand that holds the handle, a string can be made to wind around the roller under the centrifugal force of such a ball.

Following then a certain rule involving that the strings are wound in opposite directions as clearly illustrated in Fig. 2, by holding the roller 10 in a stationary condition, and by making a swinging movement in the direction of the arrow 18, the attached string 14 will unwind by the centrifugal force of the ball II.

While the roller 10 is held stationary and the swinging movement in the direction of the arrow 18 is maintained, the string 13 can neither unwind nor wind any further since the ball II is held against the roller under this condition.

After the string 14 has been unwound fully, the roller 10 can be released so that the string 13 may be caused to unwind under the influence of the weight of the ball I in the direction of the arrow 20, since under this condition the roller 10 is turned in the direction of the arrow 19 by the swinging of the ball II in the direction of the arrow 18.

Considering the illustration of Fig. 3, if both strings have been fully unwound, with the ball I used as the actuating force and moved in the direction of the arrow 18 and the roller 10 turned thereby in the direction of the arrow 19, the string 14 is rewound with the ball II lifted in the direction of the arrow 21, with the centrifugal force of the ball I acting on the roller 10 in such a manner as to produce the lifting of ball II.

Continuing the same swinging movement after the ball II has been lifted by then holding the roller 10 in a stationary condition as illustrated in Fig. 4, the string 13 is wound until the ball I comes into contact with the roller 10 as illustrated in Fig. 5, and, by continuing this movement further on, the string 14 is unwound as described above with reference to the illustration in Fig. 5.

An unwinding and a rewinding can in this manner be continued without interruption by the use of the centrifugal force of one ball or the other and by either holding the roller 10 stationary or allowing the roller to turn with the attached strings as described above.

Having thus described my invention, I claim:

1. In a toy, a handle for manipulating the toy, and bodies operatively interconnected and in operative relation to the handle and disposed to transmit force one to another by a movement of the handle.

2. In a toy, an handle for manipulating the toy, a rotary member turnable on the handle, and bodies in firm operative relation to the said member and disposed to transmit force one to another by a movement of the handle through the medium of the rotary member.

3. In a toy, a handle for manipulating the toy, a rotary member turnable on the handle, flexible members each secured with one end to the rotary member, and bodies secured to the other ends of the flexible members adapted to wind and unwind the flexible members by a certain manipulation of the handle.

4. In a toy, a handle for manipulating the toy, a rotary member turnable on the handle, flexible members each secured with one end to the rotary member, and bodies secured to the other ends of the flexible members and adapted to form the actuating force one for the other for winding and unwinding the flexible members and for bringing the bodies in certain relation to the rotary member.

In testimony that I claim the foregoing as my invention I have signed my name.

REINHARD GUYOT.