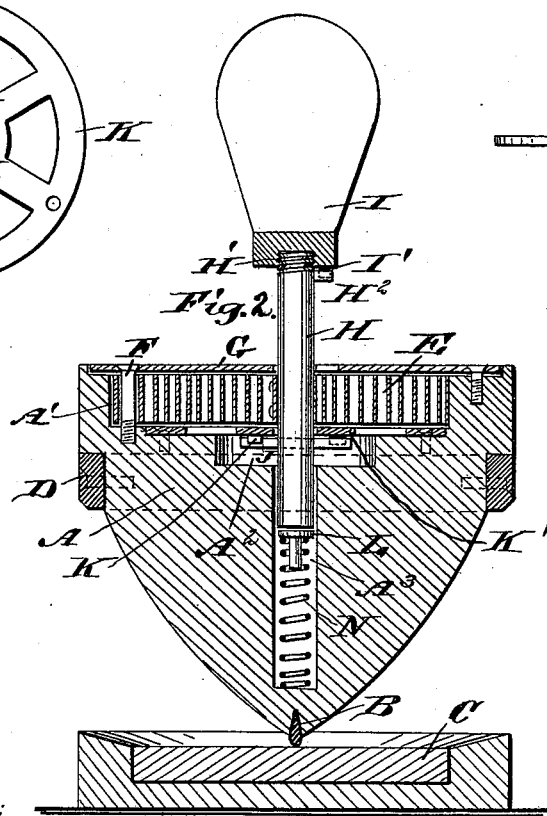
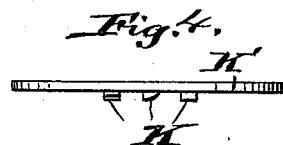
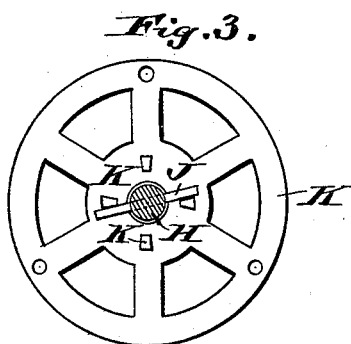
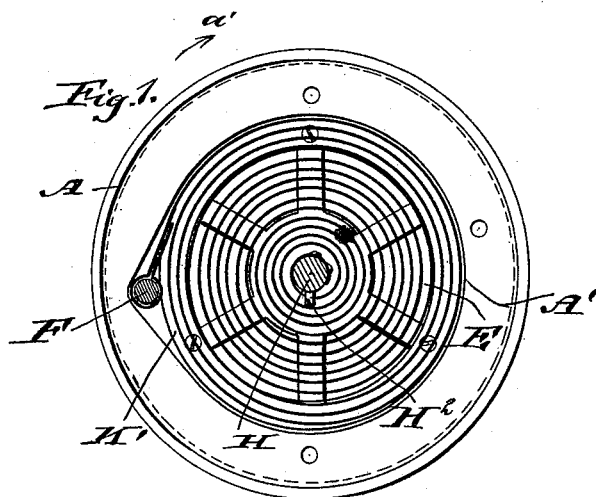


(No Model.)

N. McLAREN.  
SPINNING TOP.

No. 494,431.

Patented Mar. 28, 1893.



WITNESSES:

*J. M. Anale.*  
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# UNITED STATES PATENT OFFICE.

NATHANIEL McLAREN, OF NEW PERTH, CANADA.

## SPINNING TOP.

SPECIFICATION forming part of Letters Patent No. 494,431, dated March 28, 1893.

Application filed July 13, 1892. Serial No. 439,879. (No model.)

*To all whom it may concern:*

Be it known that I, NATHANIEL McLAREN, of New Perth, Prince Edward Island, Canada, have invented a new and Improved Spinning  
5 Top, of which the following is a full, clear, and exact description.

The invention is an improvement in the class of spinning tops, which are provided with an internal spring for rotating them, the  
10 said spring being coiled upon a rotatable spindle and held under tension by ratchet mechanism, which is released at the will of the operator.

The features of novelty are hereinafter indicated.

Reference is to be had to the accompanying drawings forming a part of the specification, in which similar letters of reference indicate  
15 corresponding parts in all the figures.

Figure 1 is a plan view of the improvement with the cover removed and parts in section. Fig. 2 is a sectional side elevation of the same. Fig. 3 is an inverted plan view of the  
20 locking device for the spindle, with the latter in section; and Fig. 4 is a side elevation of the ratchet wheel for the locking device.

The improved spinning top is provided with a body A, preferably made in the shape of an inverted cone, and formed at its apex with  
30 a point B adapted to be seated on the floor or on an especially prepared platform C of glass, porcelain, or other suitable hard substance. The body A may be weighted by applying a suitable heavy metallic ring D on  
35 the upper part of the body, or the said body may be otherwise weighted as desired.

In the upper end of the body which is cylindrical, is formed a recess A' in which is arranged a coil spring E, fastened at its outer  
40 end to a screw F screwing in the body A and engaging, with its head a cover plate G attached to the upper side of the body so as to cover the recess A'. The inner end of the spring E is secured to a spindle H arranged  
45 centrally in the top body and mounted to turn therein, the outer threaded end H' of the spindle being engaged by a nut formed on the key I which serves to turn the spindle to wind  
50 up the spring, as hereinafter more fully explained.

On the under side of the nut part of the key

I is secured or formed a lug I', adapted to engage a corresponding lug H<sup>2</sup> projecting from the spindle H directly below the inner end of the threaded part H'. It is understood that  
55 the object of the lugs is to prevent the key from screwing home to the end of the thread in which case the key would stick and cause a jerk on beginning to unscrew. When the top is spinning the spindle H turns in such a  
60 direction that when the key is held by the operator it unscrews from the threaded end H' and thus becomes detached from the top, while the latter is spinning.

On the spindle H is secured a pin J which  
65 extends diametrically through the spindle, the said pin passing into a recess A<sup>2</sup> formed in the top body below the recess A'. The ends of the pin J are adapted to engage a ratchet wheel, the lugs or teeth K of which are formed  
70 on the under side of the wheel K', extending horizontally and secured in the body A in the bottom of the recess A' and on top of the recess A<sup>2</sup>, see Fig. 2. The lugs or teeth K of the ratchet  
75 wheel are arranged in such a manner that when the spindle H is turned in the direction of the arrow a' by means of the key I, then the pin J glides over the lugs K and when at the same time the top body is held by the operator, the spring E is wound up within the  
80 top body. As soon as the operator releases the key I, the pin J seats itself on the back of two oppositely arranged lugs K, so that the spindle is locked in position on the top body. The inner or lower end of the spindle H is  
85 engaged by a disk L supported on a spring N arranged centrally in the body in a recess A<sup>3</sup> thereof. The spring N presses the disk L in contact with the spindle H so as to hold the pin J of the said spindle in contact with the  
90 ratchet wheel, the said spring permitting a downward sliding of the spindle H when the pin J glides over the lugs K, as above described.

The operation is as follows:—When the sev-  
95 eral parts are in the position illustrated in Fig. 2, and the operator turns the key I in the direction of the arrow a', see Fig. 1, then the spring E is wound up within the body A, the latter being held by the operator. When the  
100 spring has been wound up and the operator releases the key I, then the pin J seats itself

on the two oppositely arranged lugs K, thus locking the spindle H in position in the body A, so as to prevent its accidental unwinding. The operator now places the top, with the point B downward, on the floor or on the platform C and then presses on the key I holding the latter firmly in the hand. By the downward motion of the spindle H, the pin J is disengaged from the lugs K and the spring E suddenly uncoils to the full extent of the recess in which it is placed, whereby the top body is caused to revolve on the point B and as the spindle H is again locked in place (upon the removal of the downward pressure) by its pin engaging with the lugs K, the spindle revolves with the top and at the same time unscrews from the nut in the key I so that the latter is detached from the top body. The top now spins by the force or momentum derived from the sudden uncoiling of the spring E. It will be seen that a top constructed in this manner can be easily spun, as it only requires the winding up of the spring when setting the top going, as above described, the spring furnishing the motive power.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a spinning top the combination with the recessed body A, a spindle which is vertically movable, a coiled spring attached to the said body and spindle, a wheel fixed in the body and having ratchet teeth on its under side, and a cross pin fixed in the spindle and arranged below said wheel, whereby it is disengaged from the ratchet when the spindle is pressed downward, as specified.

2. A spinning top, comprising a body, a spring coiled in the said body and secured at its outer end to the said body near its periphery, a spindle mounted to turn centrally in the said body and connected with the inner end of the said spring, a ratchet wheel fixed in the said body, a pin extending from the said spindle and adapted to glide over the teeth of the ratchet when the shaft is turned in one direction, and adapted to lock against the back of the teeth, and a second spring held in the said body and pressing on the said spindle to hold the pin thereon in contact with the ratchet wheel, substantially as shown and described.

NATHANIEL McLAREN.

Witnesses:

JOHN HANCOCK,  
WILLIAM GORDON.