

No. 629,055.

Patented July 18, 1899.

J. WALLACE.
CONTINUOUS SPINNING TOP.

(Application filed Mar. 6, 1899.)

(No Model.)

Fig. 1.

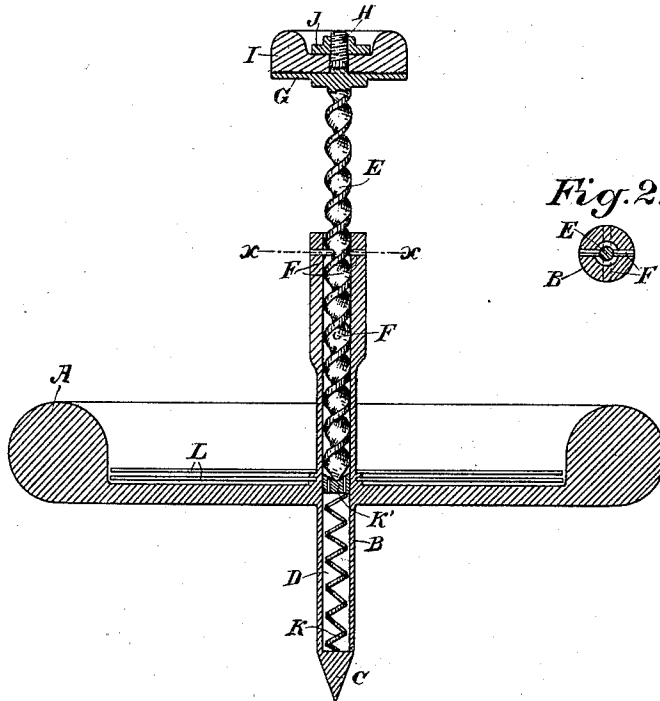


Fig. 2.

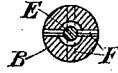
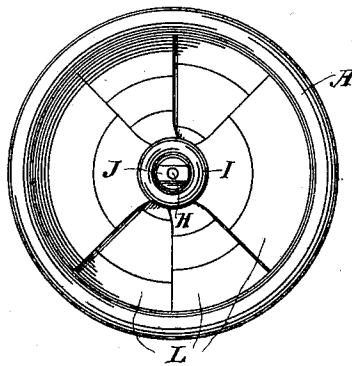


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES WALLACE, OF SACRAMENTO, CALIFORNIA.

CONTINUOUS-SPINNING TOP.

SPECIFICATION forming part of Letters Patent No. 629,055, dated July 18, 1899.

Application filed March 6, 1899. Serial No. 707,958. (No model.)

To all whom it may concern:

Be it known that I, JAMES WALLACE, a citizen of the United States, residing at Sacramento, county of Sacramento, State of California, have invented an Improvement in Continuous-Spinning Tops; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in tops.

It consists in the parts and the constructions and combinations of parts hereinafter described and claimed.

Figure 1 is a vertical section through the top. Fig. 2 is a horizontal section on line ax of Fig. 1. Fig. 3 is a top view.

A is a disk of any suitable or desired size and diameter, fixed to a central shaft or spindle B, the lower end of which has a suitable point C, upon which it is turnable when spinning. Through the center of the shaft is an axial opening D, and E is a screw which is freely slidable in this opening.

F F are pins fixed in the sides of the shaft B and projecting into the path of the screw E, so that their inner ends engage with the threads thereon. The upper end of the screw is connected with a disk G, and above this is an extension H of smaller diameter, which passes through the pressure-head I and is loosely secured thereto by a nut J, which fits in a depression of the pressure-head, as shown.

In the bottom of the tubular opening D is a spiral spring K, which presses against the bottom of the screw E and normally forces it outwardly within the tubular shaft by means of an intervening slidable step K', against which the screw and spring contact from opposite sides.

The contiguous surfaces of the pressure-head I and the disk G, which is fixed to the head of the screw, are so made that when pressure is brought upon the head I the two are temporarily locked together by frictional contact, but as soon as the pressure upon the head I is relieved the extension H, which passes through the head I, may turn loosely therein. The object of this is to hold the screw and prevent its turning when pressure is applied, so that when the operator presses upon the screw and forces it down, as it can-

not turn itself, its spirals will act through the pins F and cause the top A to turn rapidly.

As soon as pressure upon the head I is relieved the spring K forces the screw up, and as the release of the pressure upon the head I disengages it from the disk G it allows the screw to turn freely with the top, while its rising pressure upon the head again locks the screw and causes it to revolve and add to the speed of the top, the pressure being rapid enough in all cases to impel the screw at a higher rate of speed than that at which the top is turning. Thus by a continued pressure upon the top it may be caused to gyrate at such a rate as to keep up its spinning for a long time, and when it begins to loose its speed it is only necessary to press upon the head I one or more times to set it running again. In this manner the top may be made to run continuously by pressure upon the head at intervals.

In order to make the device attractive, I have shown thin flat sections L, fitting and loosely turnable around the shaft B in the top of the disk A, and when the top is spinning these sections, being loosely turnable, will change their positions. The sections may be made with various bright colors, and the combinations of these colors caused by rapid revolution will produce the well-known colors which such combinations form with a great variety of shades. The sliding step K', which forms a step in which the point of the screw rests and turns, may have openings made through it for the free passage of air, or such openings may be made in the side of the hollow spindle B, if preferred.

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

1. A top comprising a disk, a central hollow shaft extending exteriorly above and below the disk and provided with interior lugs, a screw of rapid pitch slidable in said shaft and engaging the lugs and a pressure-head adapted to engage the upper end of the screw when it is forced down whereby the top is caused to revolve.

2. A top consisting of a disk or body, a central shaft extending above and below the exterior of the disk and having an axial open-

ing extending into it from the top and lugs projecting therein, a screw of rapid pitch slidable in said opening and engaging with said lugs, a pressure-head adapted to engage the screw when pressed downwardly whereby a rotary motion is imparted to the top and a spring by which the screw is forced up as soon as pressure upon the head is relieved.

3. A top comprising a disk or body, a central hollow stem or shaft extending exteriorly above and below the disk and having a point upon which it is turnable, lugs projecting into the hollow stem, a screw of rapid pitch slidable in said stem and engaging with said lugs, a disk fixed upon the upper end of the screw, a pressure-head loosely turnable upon an extension-stem above the disk having its lower face adapted to engage and lock with the disk when pressure is applied whereby the screw is prevented from turning and the top is caused to rotate by the movement of the screw-threads with relation to the lugs in its stem and a spring by which the screw is returned when pressure upon the head is relieved.

4. In a top, a disk having an exterior rim and a disk connecting the rim with the hub or central hollow shaft which projects exte-

riorly above and below the disk said shaft being provided with interior lugs, a screw and actuating mechanism by which power is applied to rotate the top by intermittent pressure upon the upper end of the screw and colored sections resting upon the disk and loosely turnable about the shaft of the top.

5. A top consisting of a revoluble body and a central hollow stem or shaft projecting above and below its exterior and provided with interiorly-projecting lugs, a screw of rapid pitch slidable in said shaft and engaging the lugs, a pressure-head adapted to engage the screw when pressed down and to be disengaged therefrom when it is released, a spring in the bottom of the stem by which the screw is forced upward when released, and a slidable step interposed between the point of the screw and the spring, with air-passages there-through.

In witness whereof I have hereunto set my hand.

JAMES WALLACE.

Witnesses:

S. H. NOURSE,
JESSIE C. BRODIE.