UNITED STATES PATENT OFFICE.

DAVIS L. MOORE, JR., OF ARLINGTON, NEW JERSEY.

DEVICE FOR SPINNING TOPS.

1,176,687.


To all whom it may concern:

Be it known that I, DAVIS L. MOORE, JR., a citizen of the United States, residing at Arlington, in the county of Hudson and State of New Jersey, have invented a new and useful Device for Spinning Tops, which I call a top and continuous spinner and of which the following is a specification.

My invention relates to an improved form of top and its spinner, which enables the top to be spun at great speed without having to wind up the cord and which also permits the top to be spun at full speed again while it is still spinning but nearly run down—without interrupting its spinning.

The invention consists of the parts and the arrangement of the parts, of which a description follows.

Figure 1 shows top view and side view of the spinner; Fig. 2 shows the side view and bottom view of the top; and Fig. 3 shows the side view of a modified form of the driving end of the spinner spindle and the side view of the modified form of top for which this form of spinner spindle is adapted.

The top is a plain disk top upon which any color device may be mounted and as this form of top will spin for seven or eight minutes without much wobble, it is best for continuous spinning.

The top as finished is all one piece, the disk 18 being rigidly mounted on the spindle 15 with its spinning point 19 and having the reinforcing washer 20. The spindle 15 has the smaller diameter round pointed pin 14 for its upper part and at the junction of these two, is the spiral shaped track 21 with the shoulder 16 joining the beginning and end of this track as shown.

The spinner is composed of the hollow wooden handle 1, to which is attached the bent sheet metal yoke 13 by means of nails. The spool 2 is tightly mounted on the spindle 3, which is journaled in the yoke 13. The lower part of spindle 3 is formed into the hollow coil 5. The spinning cord 4 passes through the handle 1, around spool 2 and through the guide hole 10 in the yoke 13 and is provided with the terminal button 7 shown and also with a similar terminal button at the other end of the cord, which is not shown. The sheet metal spring 9 is provided for the purpose of applying light friction to the cord 4 in its passage through the handle 1.

With the spinner and top in the positions shown in Fig. 1 and Fig. 2 taken together, if the spinner is lowered over the top stem, its tubular coil 5 will envelop the pin 14 of the top and the coil end 6 will drop past shoulder 16. Then if the spinner handle is held still and the cord terminal 7 is pulled to the right, the spindle 3 and the top will be spun; and when the spindle 3 stops turning, the top will continue to spin and its spiral track 21 will lift the coil 5 of the spinner,—which the operator will then remove. Now with the construction shown, it will be seen that even when the top is spinning, the coil 5 of the spinner may, with a little care, be placed over the stem of the top,—since the hole in coil 5 is much larger than the pointed end 17 of the top stem,—and when the coil 5 has “captured” this point, it may be pressed down farther on the top stem, to secure a journaled connection with it because of the gradual slope of the pointed end of 14. When this journaled connection is established, the cord terminal 7 is to be pulled as the spinner is pressed farther down on the top stem,—to the one way drive engagement,—when the top may be spun at full speed again.

Fig. 3 shows the form of spinner spindle which is adapted to continuously spin a top having a stem with a blunt end,—the flaring funnel shape extension 22 of tube 56 (which is tightly mounted on the spinner spindle 3), serving to capture the blunt end of the top stem, while the top is spinning, and the one-way driving engagement between 56 and 110 being made, as in the other form, when the spinner is sufficiently lowered.

The continuous spinning feature is arrived at by three successive but distinct steps,—first, the capture of the end of pin 14 with the extremity of tube 5; second, the establishment of a fairly close fitting journaled connection between the tube and the pin, before the driving engagement is made; third,—making the driving engagement. The first step is accomplished by having the extremity of the tube much larger than the end of the pin and if the pin is not pointed, then the tube must be made flaring or funnel shape at the end, much larger than the pin and leading grad-
ually to a fairly close journaled connection with the pin as before,—which is the second step. The third step may be accomplished by means of any suitable one-way drive device. The tube 5 may be carried by the top and the pin 14 may be the terminus of the spinner spindle,—instead of them being placed as shown.

In addition to the continuous spinning feature, this spinner will give a more powerful impulse to a top than can be given by the usual vertical, loose holding handle, with the cord wound on the top stem. When spinning a top by the latter method, the pull on the cord must be moderated to prevent pulling the handle from the vertical and this diminishes the force of the impulse given to the top; while the straight line pull of this spinner allows the full strength of the operator to be used to spin the top, as there is no lateral turning tendency. To reset the spinner, the cord 4 is pulled back through the handle 1,—which is simpler than winding a cord on a top stem. The cord 4, in being passed through the hollow core of the handle, is kept entirely out of contact with the hand holding the spinner and the loose end of the cord is kept clear of the top. The guide hole 10 can be dispensed with, if the cord terminal 7 is made too large to pass between the spool 2 and the handle 1.

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

1. A top and a rotatable spinner therefor, comprising a spindle on one of them and a tubular member on the other to engage the spindle, the spindle having a conical end, and a one-way drive connection between the tubular member and the spindle.

2. A top and a rotatable spinner therefor, comprising a spindle on one of them and a member on the other provided with a hole, the said hole having a flaring funnel-shaped opening, and a one-way drive connection between the spindle and the member having the hole.

DAVIS L. MOORE, JR.

Witnesses:

MAUD KEEN MOORE,

WALTER G. MEADOW.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."