Aug. 6, 1935. L. JIMERSON 2,010,156

SPINNING TOP

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Fig. 1.

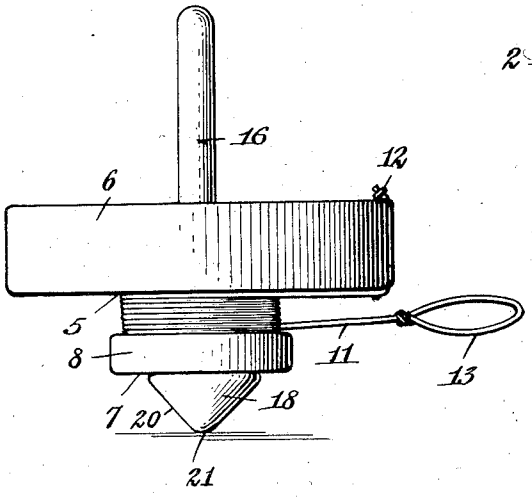
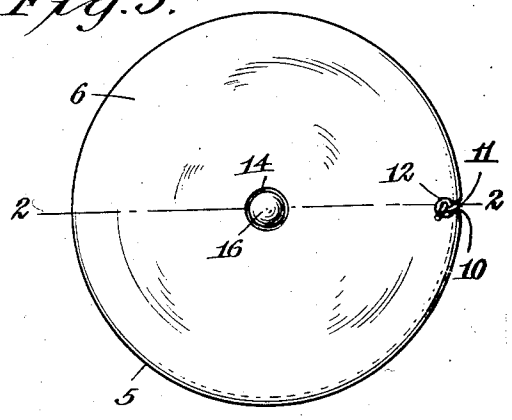


Fig. 3.



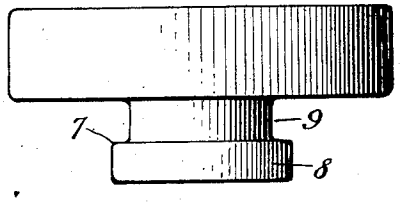


Fig. 2.

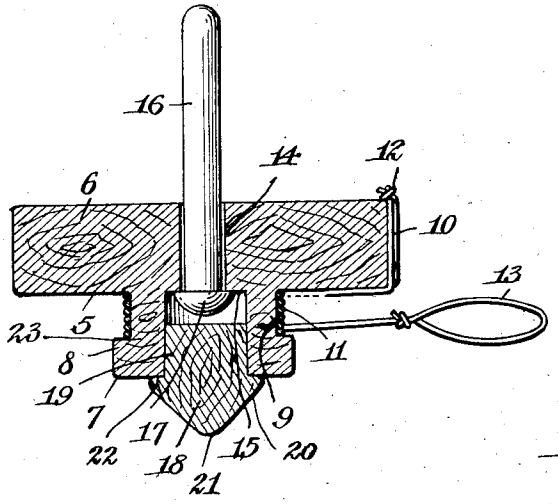
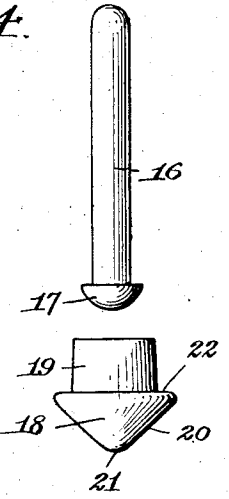


Fig. 4.



Lynn Jimerson,
Inventor.
By Emil Neubart
Attorney.

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SPINNING TOP

Lynn Jimerson, Cattaraugus Reservation, N. Y.

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5 Claims. (Cl. 46—32)

This invention relates to spinning tops, and more particularly to that type embodying a rotatable disk or wheel, and a stem or spindle serving as a handle by means of which the top is held in position while rotating the disk or wheel under the action of a string or cord coiled around a portion thereof.

The primary object of my invention is to provide a spinning top which can be constructed wholly of wood, and in which the construction is such that the tendency of the wood splitting under warpage caused by inherent strain or otherwise, is obviated.

Another object of my invention is to provide a top in which the parts thereof can be easily assembled and disassembled, so that they can be readily packed within a compact space for shipment.

Another object of my invention is to provide a top in which a string or cord is detachably applied thereto and which string or cord is adapted to be coiled around a portion of the top so as to be drawn upon with a view of rotating the top, the connection of the string or cord to the top being such as to assure ready detachment from the top during the operation of spinning the latter so that the cord will not be wound around the top during the act of spinning.

A further object of my invention is to provide the top with a rounded contact end whereby the top may be caused to travel along a predetermined course, or at least an attempt made to travel along such course, depending on the skill displayed in spinning the top.

Other objects of my invention will appear from the detailed description to follow.

The invention consists in the novel features of construction and arrangement of parts to be hereinafter described and more particularly pointed out in the subjoined claims.

In the drawing:

Fig. 1 is a side elevation of the top showing the spinning cord wound around the same and the top in position to be spun.

Fig. 2 is a section taken diametrically through the top on line 2—2, Fig. 3.

Fig. 3 is a plan view of the same.

Fig. 4 is a view of the several parts of the top showing the same disassembled, but in axial alinement.

My improved top is wholly constructed of wood, and due to the construction of the same can be manufactured from waste material, the parts being turned to desired shapes and assembled at a fraction of the cost of tops heretofore constructed.

Tops of this type having a rotatable body portion, a stem or spindle to support the same during the operation of setting the top into spinning action and a peg or contact point, have heretofore been known, but these have invariably been constructed of metal, since the construction of the parts and the manner of assembling the same would not permit of constructing the top of wood due to the tendency to split; this being particularly true of the peg or contact point.

In tops of this type, the operating cord should be self-detachable from the top at the instant the operation of setting the top into spinning action is completed; but heretofore the point of attachment of the cord was found to be so close to the axis of the top that it could not readily release itself and was recoiled during the initial free spinning action of the top, with the result that during the spinning of the top, the cord would spin with it in a loose manner and have a tendency to coil around the contact point of the peg and interfere with the spinning operation. In this respect my invention differs from tops now in use in that the attachment of the cord to the top is made at a point distant from the axis thereof or, in other words, at the point of largest circumference of the top, where centrifugal force is increased due to increased speed and a more ready detachment of the cord is assured.

Similar reference numerals are applied to the several figures of the drawing and designate corresponding parts of the top in said figures.

The reference numeral 5 designates the body portion of the top, which is of circular formation and has an upper portion 6 of comparatively large diameter and a depending axial boss 7 provided with an annular external flange 8 around its lower portion, thereby forming an annular groove 9 between the large upper portion 6 and the annular flange 8. The upper portion 6 is comparatively thick so as to give the body portion the desired weight and guard against splitting of the same.

The body portion is constructed of wood, and at its perimeter is provided with a vertical groove 10 into which one end portion of an operating cord 11 is loosely inserted, the adjacent extremity of said end being knotted or otherwise provided with an enlargement 12 to retain the cord within said groove. The cord is drawn taut within said groove and directed inwardly from the lower end of the latter towards the boss 7 and then wound around the latter within the groove 9, its other ex-

tremity being provided with a finger loop 13 by means of which it may be taken hold of to manipulate the top, as will be hereinafter explained.

The body portion is bored-out axially, as at 14, the upper portion of the bore being co-extensive with the thickness or depth of the large upper portion 6 of said body portion, or approximately so, and the lower portion of said bore being of larger diameter than the upper portion to form a downwardly-facing shoulder 15 and being preferably slightly flared downwardly.

16 designates a cylindrical stem or spindle which is entered in said bore from the lower end thereof, and it has at its lower end a head or enlargement 17 which bears, or may bear, against said shoulder. The stem or spindle extends upwardly through said bore a distance to enable it to be taken hold of by the operator and serve as a handle for the top. This stem or spindle is fitted loosely within the smaller upper portion of the bore 14 so that the body portion may rotate freely around the same. Like the body portion, this stem is also constructed of wood and is easily removable from the body portion, or insertable thereinto.

The enlarged lower portion of the bore 14 serves as a housing for a portion of a peg or contact piece 18, which is also constructed of wood and has an upper portion 19, preferably slightly tapered upwardly, firmly fitted into the enlarged slightly flared lower portion of said bore; the fit being such that the peg cannot rotate within the body portion and so that force must be employed to remove the peg therefrom. The lower part of said peg or contact piece is tapered downwardly, as at 20, in the form of an inverted cone and preferably rounded at its apex or lower extremity, as at 21; the upper extremity of said conical lower part being of greater diameter than the upper inserted portion 19 of said peg or contact piece so as to form a shoulder 22 which bears against the under side of the boss 7 of the body portion. This peg is also made of wood and by reason of its upper end being confined within the boss 7 of the body portion, is prevented from splitting under inherent strain and under strain applied exteriorly.

The parts of the top may be easily and quickly disassembled so that in shipping or packing them they can be grouped in such form as to occupy least space, as will be clearly understood.

The peg or contact piece 18 serves to close the lower end of the bore 14 and prevent separation of the stem or spindle 16 from the body portion, although there may or may not be space between the upper inserted end of the peg or contact piece and the head or enlargement of said stem or spindle as may be desired. It will, of course, be understood that friction between the stem or spindle 16 and the body portion 5, or between the head 17 of the stem or spindle 16 and the peg or contact piece 18, may cause said stem or spindle to rotate with the body portion during the spinning action, but since the head 17 is rounded, friction between the stem or spindle and the peg or contact piece is reduced to the minimum. During the act of setting the top into motion by drawing upon the operating cord 11 after being wound around the boss 7, said stem is held against rotation while the body portion and the peg thereof are being rotated.

The main portion of the top hereinbefore referred to as the body portion, is constructed comparatively heavy, and by reason of having considerable depth or thickness, will provide the desired momentum for a device of this type after being placed into spinning motion. This main portion therefore is of such bulk that inherent strains will be considerably minimized and splitting of the same consequently obviated.

A comparatively small peg or contact piece, such as I employ on a device of this kind, however, would tend to split under inherent strain created by variations in temperature and for other reasons, if unconfined or unrestrained, and for this reason I have so constructed my improved top that the circular wall 23 of the boss 7 on the body portion serves as a confining and restraining medium for said peg or contact piece.

In Fig. 1 I have shown the top in position for spinning operation, and upon taking hold of the finger loop 13 of the cord with a finger of one hand while holding the stem or spindle 16 with the other and drawing upon the cord, the latter will become uncoiled from the grooved boss, causing the body portion of the top to spin. The cord being drawn outwardly places strain upon the same, and when completely uncoiled the knotted end of the cord becomes disengaged from its retaining groove 10. As the diameter of the upper part 6 of the main portion of the top is considerably larger than the lower portion and the cord is detachably connected to said upper portion at its perimeter, it will be apparent that centrifugal force at the circumference of said large upper portion is greater than that of the small lower portion. Consequently, the pulling strain on the cord after being uncoiled, assisted by the weight of the enlargement 12 and centrifugal force, assures a more ready detachment of the operating cord from the top than would occur if said cord were attached to the smaller lower portion, and the tendency of the cord being recoiled in an irregular manner around the top, at times working itself down to the tip of the peg or contact piece so as to interfere with the spinning action, is entirely eliminated.

By providing the apex of the inverted conical lower portion of the peg or contact piece with a perceptibly rounded contact end rather than a pointed end, as is now common, I am enabled to cause the top to spin over a considerable area; it being only necessary to position the top in such a manner with respect to its supporting surface that the axis of the top is at an inclination to such surface during the act of setting the top into spinning motion. The effect of this is similar to applying "English" to a cue ball in a game of pool or billiards. It will therefore be apparent that considerable display of skill may be developed in causing the top to travel along certain more or less prescribed courses, and in addition it aids considerably to the amusement derived from spinning the top.

Having thus described my invention, what I claim is:

1. A spinning top, comprising a body portion having a bore extending axially therethrough and provided with a downwardly-facing shoulder, a stem within said bore having an enlarged lower end wholly within said bore providing an upwardly-facing shoulder and around which said body portion is rotatable, a peg inserted into the lower end of said bore to prevent downward withdrawal of said stem from said body portion, and an operating cord adapted to be coiled around said body portion.

2. A spinning top, comprising a body portion having an axial boss at its lower end and a bore extending axially therethrough and through said

boss, said bore being enlarged at its lower end to form a downwardly-facing shoulder, a stem entered in said bore and having an enlarged lower end within the enlarged portion of said bore adapted for co-action with said downwardly-facing shoulder, a peg frictionally entered into the enlarged lower portion of said bore, and an operating cord detachably secured to said body portion at its periphery and being adapted to be directed inwardly toward said boss and coiled around the same.

3. A spinning top, comprising a circular body portion having an axial boss at its lower end and a bore extending axially therethrough and through said boss, said bore being enlarged at its lower end to form a downwardly-facing shoulder, a stem entered in said bore and having an enlarged lower end within the enlarged portion of said bore adapted for co-action with said shoulder, a wooden peg frictionally entered into the enlarged lower portion of said bore so that the surrounding wall of the enlarged portion of said bore serves as a restraining and confining element for said peg, and an operating cord self-detachable from the periphery of said body portion adapted to be directed inwardly towards said boss to be coiled around the same.

4. A spinning top, comprising a body portion formed of wood and being of circular formation, said body portion having an axial boss extending downwardly therefrom and said boss having an outstanding annular flange at its lower end to form a cord-receiving groove between said flange and said body portion, said body portion having a groove in its peripheral face parallel with its axis and said body portion and boss having an axial bore enlarged at its lower end within said boss to form a downwardly-facing shoulder therein and a confining wall for the enlarged portion of said bore, a wooden holding stem entered in the upper portion of said bore and having a head at its lower end within the enlarged lower portion of said bore, said stem projecting upwardly from said body portion, and a wooden peg frictionally entered within the enlarged lower portion of said bore and surrounded by the confining wall thereof, said peg having a downwardly tapered portion and said downwardly-tapering portion having its upper end of larger diameter than the portion of the peg entered into said bore to provide an upwardly-facing shoulder bearing against the lower end of said boss, and an operating cord having an enlargement at one end and being entered adjacent said end within the peripheral groove of said body portion, said cord being adapted to be directed toward the groove of said boss and coiled around the same.

5. A spinning top, comprising a body portion having an axial boss at its lower end and a bore extending axially therethrough and through said boss, said bore being enlarged at its lower end to form a downwardly-facing shoulder, a stem entered in said bore and having an enlarged lower end within the enlarged portion of said bore adapted for co-action with said downwardly-facing shoulder, and a peg frictionally entered into the enlarged lower portion of said bore.

LYNN JIMERSON.