Jan. 19, 1937. E. G. GEHMAN 2,068,053

MULTIPLE SPINNING TOP DEVICE

Filed July 29, 1936

FIG. 1.

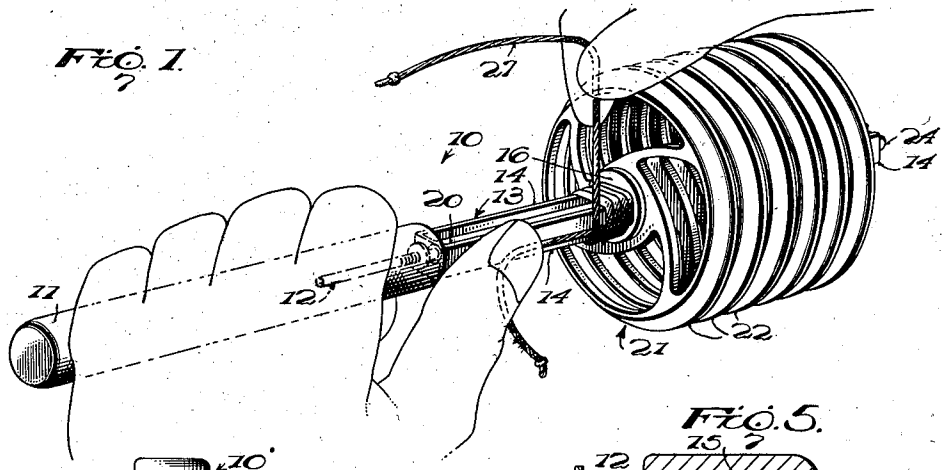
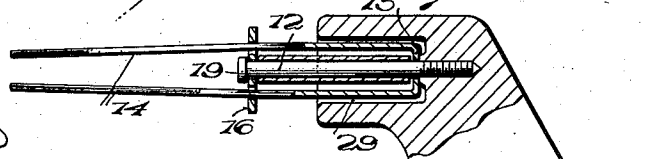


FIG. 5.



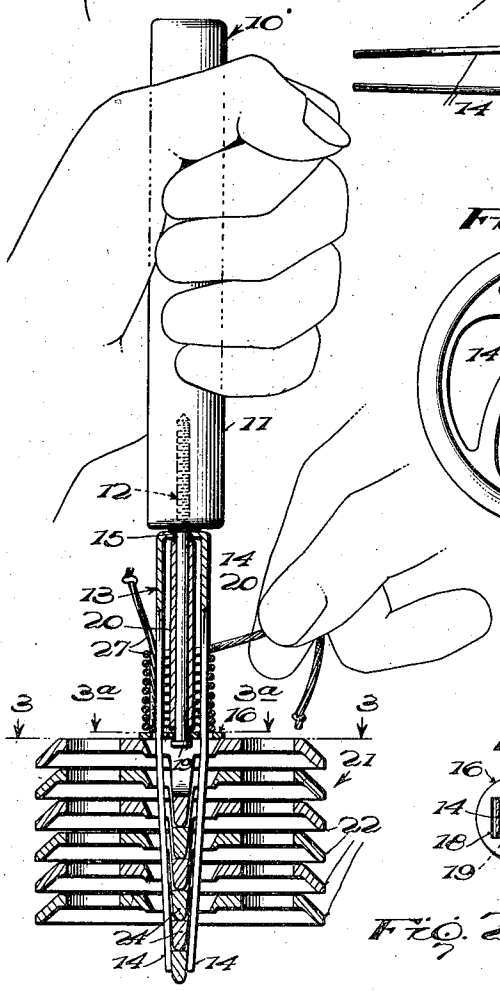


FIG. 3.

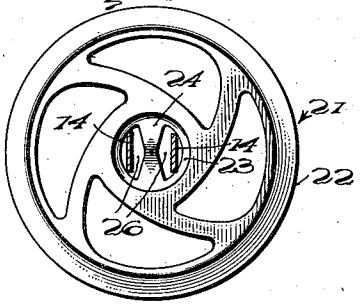


FIG. 4.

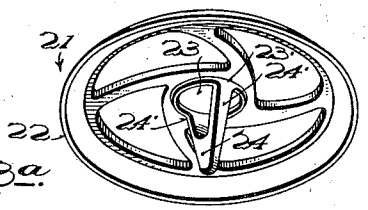


FIG. 3a.

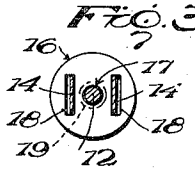


FIG. 2.

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MULTIPLE SPINNING TOP DEVICE

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Application July 29, 1936, Serial No. 93,301

15 Claims. (Cl. 46—47)

My invention relates to spinning tops.

An important object of the invention is to provide a multiple spinning top device which is inexpensive to manufacture, easy to assemble, of little bulk and weight for shipping, can be sold in retail stores cheaply or at little more than the price of one good top of the usual kind, is extremely durable, and attractive in operation to children and adults.

A further object of the invention is to provide a device of the above mentioned character, so constructed that the tops spin at high speed for a considerable time, and by encountering different hazards they afford interesting contests and readily suggest various games, both for the individual operator and for a party of players.

A further object of the invention is to provide a spinning device which is adjustable to receive and hold a top or tops thereon and to release the same when properly rotated.

A further object of the invention is to provide a multiple spinning top device so constructed that the top or tops may be set into rotation at an elevation above the spinning surface and then dropped upon such surface.

A further object of the invention is to provide a device of the above mentioned character which will cause the tops to drop at spaced intervals upon the spinning surface so that they will be free to properly spin.

A further object of the invention is to provide a device of the above mentioned character requiring no particular skill in operating the same.

Other objects and advantages of the invention will be apparent during the course of the following description:

In the accompanying drawing forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a perspective view of a multiple spinning top device embodying my invention, showing the cord being wound in place,

Figure 2 is a side elevation of the same, parts in section, showing the tops supported above the spinning surface, and the cord being pulled.

Figure 3 is a transverse section taken on line 3—3 of Figure 2,

Figure 3a is a transverse section taken on line 3a—3a of Figure 2,

Figure 4 is a perspective view of one of the tops, and,

Figure 5 is a side elevation, parts in section, of a spinning device embodying a modification of the invention,

Attention being called first to Figures 1 to 4, inclusive, the numeral 10 designates a spinning device, as a whole, including a handle 11. Rigidly secured to the forward end of the handle 11 is a pivot element 12, which may be in the form of a nail. This pivot element projects longitudinally beyond the forward end of the handle and preferably has its central longitudinal axis in alignment with the central longitudinal axis of the handle.

Rotatably mounted upon the pivot element 12 is a carrier 13, preferably in the form of a fork, including spaced oppositely arranged tines 14, having their rear ends connected by a transverse portion 15. This transverse portion is apertured to rotatably receive the pivot element 12. A connecting element or disk 16 is provided, which is preferably circular, having a central opening 17, rotatably receiving the pivot element 12. This connecting element or disk is provided with oppositely arranged spaced elongated slots 18, to receive the tines 14. The tines are preferably made of a relatively wide flat metal strip, which is resilient. The slots 18 are wider than the thickness of the tines, and the tines are tensioned to move outwardly to engage the outer walls of the slot, but when pressure is applied to the outer sides of the tines, they move inwardly, to engage with the tops, in a manner to be described, and the width of the slots 18 permits of this proper inward movement of the tines. The connecting element or disk 16 is arranged behind the head 19 of the pivot element 12 and a spacing sleeve 20 is carried by the pivot element 12 and arranged between the connecting element or disk 16 and the transverse portion 15, to prevent undue longitudinal movement of the carrier upon the pivot element 12.

The spinning device is employed to spin a plurality of tops 21, which are identical in construction. Each top comprises a circular body portion 22, having a central circular opening 23, formed in a hub 23', and a depending V-shaped hollow spinning element 24. This spinning element is preferably generally flat. The arms 24' of this spinning element are secured to the hub 23', at diametrically opposite points, thereby dividing the central opening 23 into segmental passages 26. The arms 24' of the hollow spinning element 24 are longitudinally tapered in a downward direction and hence increase in thickness upwardly. The construction of the tops is such that they may be arranged in stacked relation, the V-shaped hollow spinning element 24 of one top

passing into the V-shaped hollow spinning element of the next top.

In the use of the multiple top device, the handle 11 may be held in the left hand in a generally horizontal position, Figure 1, and the tops 22 applied to the tines 14. These tines extend through the passages 26, and the hollow V-shaped elements are arranged between the tines. The hollow V-shaped elements interfit, as more clearly shown in Figure 2. It is obvious that the rotation of the carrier 13 will cause the hollow spinning element 24 to engage with the tines and rotate the tops with the tines. When the tops are thus applied to the tines of the rotary carrier, a flexible element, such as a cord 27 may have one end held against one tine by the thumb while the operator tightly wraps the cord 27 about the tines adjacent to the connecting element or disk 17. The action of this tightly wound cord is to press the tines inwardly so that these tines will have clamping engagement with the V-shaped spinning element 14 of the outer or foremost top. As the tines 14 normally converge slightly, and since the arms 24' of the V-shaped spinning element 24 also converge or taper forwardly, when the tines are brought into clamping engagement with the spinning element 24, the forward or outer top is securely held upon the tines, which in turn retains the other tops thereon. The handle 11 may now be vertically arranged with the tops lowermost, and the cord pulled, which rotates or spins the carrier 13 and the tops thereon. The pressure upon the sides of the tines 14 being released when the cord is unwound therefrom and these tines being resilient and further being acted upon by centrifugal force, move to the open position in contact with the outer walls of the slots 18, but do not contact with the walls of the opening 23. The tops then drop from the carrier and fall upon the spinning surface and spin upon their spinning elements 24. The tops may differ in appearance as by being painted different colors, if desired. While the spinning device is designed to spin a plurality of tops, yet it may be employed to spin a single top, if desired.

In Figure 5, I have shown a modification of the invention. In this figure, the straight handle 11 is dispensed with and a pistol-grip handle 28 employed. The pivot element 12 is secured to the forward end of this pistol-grip handle and is arranged within a recess 29. The rotatable carrier 13 and associated elements are mounted upon the pivot element 12 and a portion of the carrier operates within the recess 29. An advantage of this construction is that by having the rear portion of the tines 14 operating within the recess 29, the cord 27 is necessarily wound about the tines adjacent to the connecting element or disk 16, which is desirable, instead of near the rear ends of the tines. All other parts of the spinning device remain identical with the first form of the spinning device, heretofore described. The tops 22 are mounted upon the tines 14, and caused to spin as described in connection with the first form of the invention.

It is to be understood that the forms of my invention herewith shown and described are to be taken as preferred examples of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of my invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A multiple spinning top device comprising, a plurality of tops, each top comprising a body portion having an opening and a hollow spinning element, the opening being arranged radially outwardly of the axis of rotation of the spinning element, the hollow spinning elements of the tops being adapted to interfit, a handle, and a rotary carrier secured to the handle and including a part for insertion through the openings in the tops and serving to spin the tops.

2. A multiple spinning top device comprising, a plurality of tops, each top comprising a body portion and a spinning element, the body portion having an opening, the opening being arranged radially outwardly of the axis of rotation of the spinning element, a handle, and a rotary carrier secured to the handle and having a part for insertion through the openings of the tops.

3. In a spinning top device, a top comprising a body portion having a substantially central opening, said opening having its plane in the plane of rotation of the body portion, and a generally flat spinning element having its axis of rotation disposed at substantially a right angle to the plane of the opening and secured to the body portion adjacent to the opening to divide the same into passages.

4. In a spinning top device, a top comprising a body portion having a substantially central opening, said opening having its plane in the plane of rotation of the body portion, and a hollow V-shaped spinning element secured to the body portion adjacent to the opening, said spinning element having its axis of rotation at substantially a right angle to the plane of the opening.

5. In a spinning top device, a top comprising a relatively thin body portion having an opening, said opening having its plane in the plane of rotation of the body portion, and a spinning element secured to the body portion and arranged upon one side of the body portion, the spinning element exending downwardly beyond the body portion.

6. A multiple spinning top device, comprising a plurality of tops, each top having a pair of spaced openings near its center and a part arranged between the openings, a rotary carrier comprising a pair of spaced tines for insertion through the pairs of openings in the tops, a handle to which the carrier is secured, and means to exert pressure upon the tines so that they are moved inwardly toward each other for engagement with said part of the outermost top and to rotate the carrier.

7. A multiple spinning top device, comprising a plurality of tops, each top having a spinning element and a pair of passages disposed upon opposite sides of the spinning element, a rotary carrier comprising a pair of spaced tines for insertion through the passages with the spinning elements arranged between the tines, and means to exert pressure upon the tines to move them toward each other and to rotate the same.

8. A spinning top device, comprising a handle, a pivot element secured to the handle, a fork rotatably mounted upon the pivot element and including yieldable tines, a disk mounted upon the pivot elements and having openings to receive the tines, the openings being thicker than the tines so that the tines may have their forward ends moved together by pressure applied to the tines at points rearwardly of the disk, and a top having openings to receive the tines and a part arranged between the openings to be disposed between the tines.

9. In a spinning top device, a handle having

a recess, a pivot element extending through the recess and secured to the handle, a fork rotatably mounted upon the pivot element and having tines with a portion of the tines rotating within the recess, and a disk carried by the pivot element and having openings to receive the tines, the openings being larger than the tines to permit of relative lateral movement between the tines and said disk.

10. A spinning top device, comprising a handle, a fork rotatable upon the handle and comprising wide flat tines, a plurality of tops, each top comprising a body portion carrying a central opening and a generally flat spinning element arranged adjacent to the central opening to divide the same into passages, the tines being inserted through the passages, and a flexible element to be wound about the tines to force them inwardly toward each other and to rotate the tines.

11. A multiple spinning top device comprising, a plurality of tops adapted to be arranged in superposed relation, each top having spaced openings, a handle, a rotary carrier mounted upon the handle and including tines for insertion through the openings of the several tops, one tine being shiftable laterally with relation to the handle for holding the tops upon the tines, and a flexible element to be wound upon portions of the tines to force the laterally shiftable tine inwardly and to also rotate the tines.

12. A multiple spinning top device comprising a plurality of tops to be arranged in superposed relation, each top having an opening, an element to be passed through the openings of the superposed tops, a handle to which the element is attached, a rotary element carried by the handle and shiftable laterally for holding the tops upon the first named element, and a flexible element to be wound about said elements and serving to force the rotary element laterally inwardly and to also rotate the rotary element.

13. A multiple spinning top device, comprising a plurality of tops to be arranged in superposed relation, a handle, a rotary carrier mounted upon the handle and including spaced tines to engage the tops, one tine being shiftable laterally inwardly toward the other tine for holding the tops upon the tines, and a flexible element to be wound upon portions of the tines to force the laterally shiftable tine inwardly toward the other tine and to also rotate the carrier.

14. A multiple spinning top device, comprising a plurality of tops to be assembled in superposed relation, a handle, a rotary carrier secured to the handle and including tines for retaining the tops in the assembled relation and rotating them one tine being movable toward the other tine, and means to rotate the carrier and also serving to shift the movable tine toward the other tine so that the tines will hold the tops against dropping from such tines, said tines permitting the tops to drop therefrom when said means releases said tine which is movable toward the other tine.

15. A multiple spinning top device comprising a plurality of tops to be assembled in superposed relation and having parts which telescope when the tops are assembled so that such tops are arranged in close relation, a handle, a rotary carrier secured to the handle and including tines for engaging the tops and rotating them one tine being movable toward the other tine, and flexible means wound about the tines to rotate the carrier and shift the movable tine toward the other tine.

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