# United States Patent [19]

**Goldfarb et al.**

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[54] **TOP GAME AND APPARATUS**


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[73] Assignee: **Adolf E. Goldfarb,** Tarzana, Calif.



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[21] Appl. No.: **81,129**

**Related U.S. Application Data**

[63] Continuation of Ser. No. 807,299, March 14, 1969, abandoned.

[52] **U.S. Cl.** ..... **273/108**

[51] **Int. Cl.** ..... **A63b 67/14**

[58] **Field of Search** ....273/108, 128, 119; 46/70, 71, 46/72



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[57] **ABSTRACT**

A top game comprising (a) a plurality of spinner units, each of which is the combination of a spindle-type top, a holding means detachably connected to the top so as to support the top but be readily releasable from it, and a string attached to the holding means for winding around the top; and (b) a stadium having a plurality of wall receivers or receiving means for each receiving and supporting a spinner unit so that the holding means may be pulled simultaneously or in rapid succession to spin the tops and introduce them into the stadium for engagement with one another.


**7 Claims, 8 Drawing Figures**

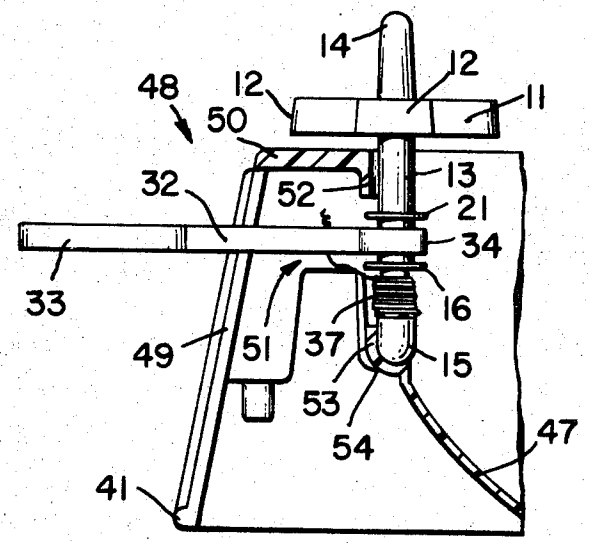


Fig. 1.

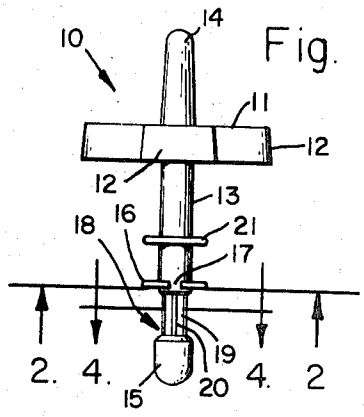



Fig. 2.

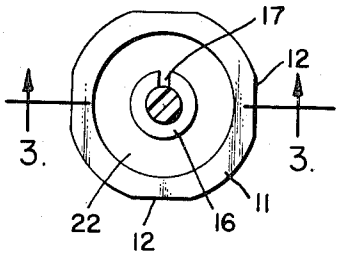



Fig. 4.

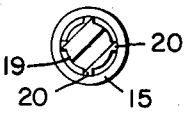



Fig. 3.

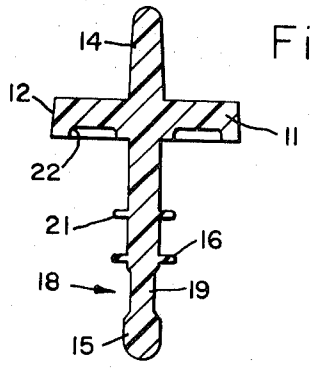



Fig. 5.

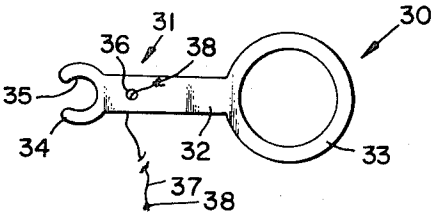



Fig. 6.

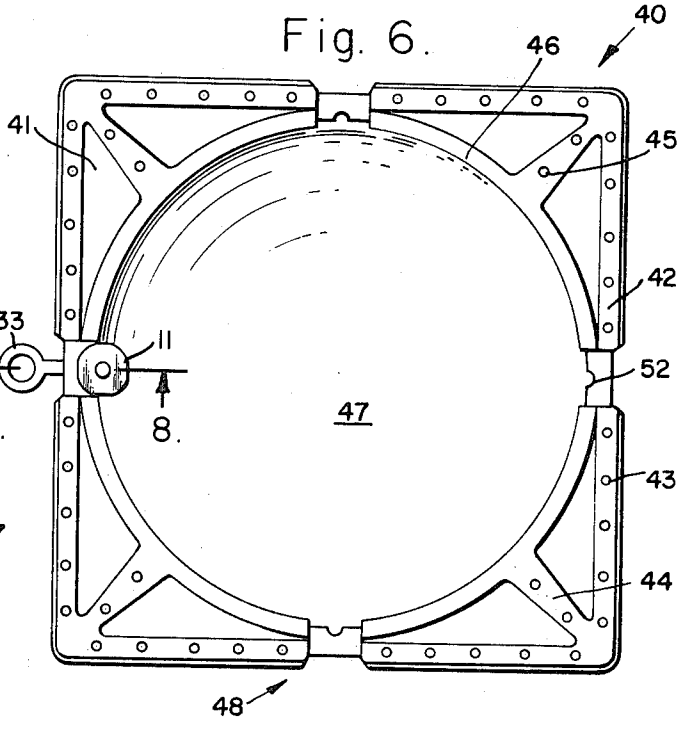



Fig. 8.

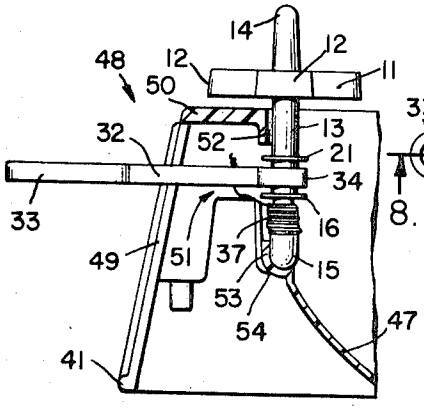
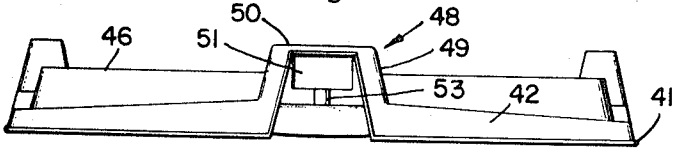



Fig. 7.




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# TOP GAME AND APPARATUS

This is a continuation of Application Ser. No. 807299, filed Mar. 14, 1969 (since Abandoned).

Spindle-type tops, which generally comprise an elongated spindle and an annular disk or block portion intermediate the ends of the spindle, have been a favorite toy of children for a long period of time. For the most part, they are spun by placing the top on a surface such as the floor or a table top and either manually twisting the spindle portion or quickly pulling the free end of a string which has been wound around the spindle portion. However, even when using the preferred means of a wound string for spinning a top, with the child supporting the top upright with one hand and then pulling the string with the other hand, a common problem, particularly for young children, has been that the child generally lacks sufficient skill to precisely time the release of the top by his hand in relation to pulling the string. For example, if the string is pulled substantially before the top is released by the hand, a major portion of the spin imparted thereto is absorbed by the frictional engagement of the top with the hand so that the top will spin weakly and for only a short time. On the other hand, if the top is released by the child's hand before the string is pulled, the top may tip over and not be spun at all when the string is then pulled, or a vigorous pull of the string may itself upset the unsupported top and send it flying across the room. This would prove frustrating and irritating to the child and would limit his enjoyment of and desire to play with the top.

A number of games have been devised wherein the top is only part of the game and is utilized in various fashions such as to knock down other objects or another top. Typically in such a game, a receiver means was provided to give lateral support to the top while the string was being pulled. The receiver means might include an upright wall portion with an aperture therethrough for the string. The top would be positioned on one side of the wall with the free end of the string extending through the aperture to the other side of the wall where it could be grasped and pulled by the child. If the top would stay in upright position against the side of the wall until the string was pulled, the pulled string would tend to hold the top upright and against the wall until the string was unwound and released from the top. The problem was to maintain the top in upright position until the child pulled the string. The prior games provided some limited and partial lateral support to the top by virtue of open notches at the receiver means. These were generally ineffective and inadequate to keep the tops from falling frequently, to the great irritation and frustration of the child. Applicant is not aware of any such prior game which attempted to give full lateral support to the tops. It is even questionable if such full lateral support by the receiver means is desirable since it would impair the release and desired lateral movement of the spinning top, as well as amount of spin. For example, while the receiver means might include a simple snap ring which would engage the top and maintain it upright, even if the snap ring could be configured to release the pinning top, a great deal of the rotational energy of the spinning top would be absorbed in gaining its release. While complicated and costly release mechanisms might be developed for this purpose, it is of course preferred to maintain relatively low cost and simplicity for this type of product. Thus, the prior games still required the use of the child's hand to help maintain the top upright until the string could be pulled, and therefore did not really solve the problem, particularly for younger children, of timing the release of the top to the pulling of the string.



In addition to the problems discussed above, the child frequently had trouble keeping the end of the string in place when he started winding the string around the top; he also experienced problems in winding the string in the desired or preferred manner. Consequently, the present invention contemplates and it is an object of the present invention to provide a novel and improved combination of a top of the type designed to have a string wound around it and pulled to spin the top, and spinning means operative to support the top in upright position position both before and while the string is being pulled, to facilitate the rapid pull of the string, and to release the top so as to minimize interference with and reduction of the spin imparted to the top.

The present invention further contemplates and it is a further object of the present invention to provide a novel and improved top game wherein a plurality of tops may be spun and introduced into a common area simultaneously or in rapid succession.

Other objects and advantages of the present invention will be readily apparent from the following description and drawings which illustrate a preferred exemplary embodiment of the present invention.

In order to facilitate understanding of the present invention, reference will now be made to the appended drawings of a preferred specific embodiment of the present invention. Such drawings should not be construed as limiting the invention which is properly set forth in the appended claims.

FIG. 1 is a side elevation of a top which is a preferred embodiment of the present invention;

FIG. 2 is a cross-sectional view of the top shown in FIG. 1 taken along the line 2—2 of FIG. 1;

FIG. 3 is a cross-sectional view of FIG. 2 taken along the line 3—3 of FIG. 2;

FIG. 4 is a cross-sectional view of FIG. 1 taken along the line 4—4 of FIG. 1;

FIG. 5 is a plan view of the holding means of the present invention;

FIG. 6 is a plan view of the stadium of the present invention showing one spinner unit in place ready for operation;

FIG. 7 is a side elevation of the stadium shown in FIG. 6;

FIG. 8 is a partial cross-sectional view of FIG. 6 taken along the line 8—8 of FIG. 6.

In general, a preferred form of the present invention involves a spindle-type top **10** adapted to have a string or cord **37** wound around its spindle and then pulled to spin the top. Spinning means include an elongated holding means **30** to which the free end of the wound string is secured. At one end the holding means is provided with a pulling handle **33** while at its other or inner end it is provided with connecting means such as a resilient snap ring **35** for releasably grasping the top. The spinning means also include a receiver means **48** which has an upright wall portion **46** for resisting lateral movement of the top in at least the rearward

direction while leaving it free for lateral movement in the forward direction. The wall portion **46** has an aperture **51** through which the holding means **30** and the string **37** pass. The child simply and with one hand grasps the handle **33** of the holding means **30** and pulls rapidly, generally away or rearwardly from the top. The top **10** is held in desired upright position against the wall portion **46** by the holding means **30** until the holding means virtually simultaneously disengages from the top and begins to pull on the string. Further pull of the string holds the top against the wall portion **46** of the receiver means **48** as well as imparting spinning to the top, until the end of the string is reached and the top spins outwardly from the receiver means. A plurality of tops, holding means and receiver means may be provided. This permits a single child to introduce a number of spinning tops in rapid succession into a common area to engage each other or other objects. It also permits play by several children who may simultaneously or in some rapid sequence introduce a number of the spinning tops into an area.

As illustrated in FIGS. **1–4** the top **10** comprises a generally circular block **11** which in the preferred embodiment is specifically a disk having a plurality of flat sides or edges **12** which form a corresponding number of corners to facilitate sharp contact when the spinning top engages a similar spinning top. Extending coaxially of the disk **11** in both directions is a spindle **13** having a rounded top **14** and a rounded bottom **15**; however, the disk **11** is positioned closer to the top **14**. The disk **11** has an annular groove **22** formed therein to increase the rotational momentum of the top while decreasing the total weight of the top.

The spindle **13** has a circular flange **16** with a notch **17** therein with two circumferential channel means **18** adjacent thereto: one for winding the string around and one for receiving the holding means **30**. The channel means **18** for winding the string around is an annular recess **19** adjacent to and below the flange **16**. The recess **19** has a plurality of axially extending ribs **20** therein which increase the frictional engagement between the top and the string. Spaced from the upper side of the flange **16** is a guide flange **21** which forms between it and flange **16** the second channel means **18** for receiving the holding means **30**.

As shown in FIG. **5**, the holding means **30** has a shaft **32**, the ring pulling handle **33** at one end and a pair of flexible prongs **34** at the opposite end which are curved to form the recess or resilient snap ring **35** adapted to detachably connect to the spindle **13** of the top **10**. The shaft **32** has a hole **36** through which is threaded a string **37** having knots **38** at opposite ends. Hole **36** is tapered to facilitate threading the string **37** therethrough, and to lock one of the knots within the hole.

As illustrated in FIGS. **6–8**, the stadium **40** consists of a base **41** having a rail **42** around the edge with a plurality of small numbered sockets **43** to facilitate the score keeping of the game by inserting pegs (not shown) in the sockets **43** and advancing each peg each time a particular player is successful. In addition, mounted on the base **41** are diagonal ribs **44** which also contain large sockets **45** for holding tops which are not in use. Tangential to and within the rail **42** is the circular wall **46** of the stadium **40** which encloses the concave central area **47**. Receiving means **48** is formed integrally with wall **46** by means of vertically extending side posts **49** and a cross bar **50** therebetween. The posts **49** and cross bar **50** form an aperture **51** which permits access to the stadium through the receiving means **48**. Formed on the inner side of the cross bar **50** and the wall **46** are axially aligned semicircular slots **52** and **53** respectively, with the lower slot **53** having a floor **54**.

To operate the spinner unit formed by the combination of the top **10** and the string **37** and the holding means **30** of the present invention, the knot **38** in the free end of the string **37** is engaged in the notch **17** of the flange **16** and the string **37** is wound in the recess **19** until the snap ring **35** is adjacent to the top **10**. Next the prongs **34** are snapped over the spindle **13** between the flange **16** and the guide flange **21** so that the holding means **30** holds the top **10** and is maintained adjacent to the wound string **37**. The ring **33** on holding means **30** is then passed through the aperture **51** in the stadium **40** from the inside to the outside, and the bottom **15** of the spindle is received in the slot **53** resting on the floor **54** while the portion of the spindle **13** between the flange **21** and the disk **11** is received in the slot **52**. When in such position, by virtue of the connection between the holding means **30** and the top, and due to the weight of the ring **33** of the holding means, the top **10** is maintained in that position for injection onto the central area **47** of the stadium **40**. The extension of the ring **33** to the exterior of the stadium permits the holding means **30** to be manipulated externally of the stadium. Consequently, to spin the top one merely jerks suddenly on the holding means **30** which causes the top to rotate rapidly; the top is kept from lifting up and out of slot **53** by flange **21** engaging the bottom edge of slot **52**. When the string is fully unwound the top is released into the central area **47** of the stadium **40** to spin there around in a weaving pattern. If one or more additional tops are simultaneously injected into the stadium, the tops engage in a multitude and variety of collisions which can result in the tops either being simply knocked over or completely knocked out of the stadium. While the game played therewith can have a variety of rules, commonly points are scored for knocking over the opponent's top or knocking the opponent's top out of the stadium.

It will be appreciated that many other specific embodiments of the present invention will be obvious to one skilled in the art in view of the disclosure of the preferred embodiment of the present invention. For example, the circular block instead of being a disk may be a conoid or a cylinder. Likewise, the arrangement of the notch flange and the channel means may be varied as to the location and sequence as long as the aforementioned functions are performed. Also, the stadium may have various configurations and locations of receiving means.

The illustrated spinner unit provides the combination of a top, a holding means adapted to be detachably connected to the top, a string attached to such holding means which can be wound around the top, and a receiver or reaction means against which the top is pulled and permitted to rotate in the upright position until the string is unwound. This combination permits the top to be held by a single holding means with the

string wound thereon and insures that the holding means is detached generally simultaneously with the jerking of the string to spin the top, with the top being maintained in the upright position up to and during the unwinding of the string. Consequently, spin is imparted to the top with maximum efficiency and reliability.

It will be understood that the foregoing descriptions and examples are only illustrative of the present invention and it is not intended that the invention be limited thereto. All substitutions, alternations and modifications of the present invention which come within the scope of following claims or to which the present invention is readily susceptible without departing from the spirit and scope of this disclosure are considered part of the present invention.

We claim:

1. A top game comprising:
   a. at least one spinner unit comprising a top, a holding means adapted to be detachably connected to said top, and a string attached to said holding means, said top being adapted to have said string wound thereon; and
   b. a stadium having a circumferential wall and a concave central area, said wall having at least one receptacle means adapted to releasably receive one of said spinner units and react against said top of said unit for injection of said top onto said central area.

2. A top game as defined in claim 1 wherein said top includes a spindle having an annular flange and a channel means below said flange for receiving said holding means, said receiving means having slot means for receiving and reacting against said top spindle, said slot means being positioned to engage the upper surface of said annular flange to limit upward movement of said top incident to spin being imparted said top by said holding means being pulled.

3. A play apparatus comprising a top and means for supporting and imparting spinning motion to said top, said means including:
   a. receiving means providing lateral resistance to movement of said top in a generally rearward direction but offering no obstruction to said top in the opposite generally forward direction;
   b. a separate holding means detachably connected to said top for rapid disconnection by movement of said holding means in said rearward direction, said holding means being capable of supporting said top in all lateral directions and moving it against slight resistance; and
   c. a string attached to said holding means and wound around said top for causing the top to spin when the holding means is pulled.

4. A play apparatus as stated in claim 3 wherein said receiving means includes an upright wall portion having an aperture therethrough for passage of said holding means and said string.

5. A play apparatus as stated in claim 3 wherein said holding means is elongated and has at one end a pull handle at the other end resilient prongs forming a snap ring which is detachably connected to the top.

6. A top game comprising:
   a plurality of spinner units each comprising a top body, including a spindle, a string wound about said spindle for imparting spinning motion to said top body and a manually operable holder operatively connected to said string and releasably connected to said top body, said holder connected to said top body serving to retain said string on said spindle, said holder when released from said top body and pulled relative thereto serving to unwind said string and to impart said spinning motion to said top body; and
   a stadium having a central area and a plurality of receiving means situated around said central area for each receiving one of said spinner units, with said holder extending outwardly therefrom to be manually grasped and pulled, each of said receiver means being arranged to react against the associated top body when the string is pulled and unwound, whereby a plurality of spinning top bodies may be introduced into said central area for contact and reaction between the spinning top bodies.

7. A top game as defined in claim 6 wherein each of said receiving means includes a pair of vertically spaced wall portions defining slots for engaging said top body and an aperture between said slots through which said holder extends.

* * * * *