A spinner capable of imparting clockwise and counterclockwise rotation to a toy top by pulling a string. The spinner includes a spinner body, a first gear with string wound therearound, a second gear meshing with the first gear, and first and second toy top holders that rotate interlockingly with the second gear. The string has one end attached to the first gear and the other end can be pulled from the outside. The holders each include a portion for holding the toy top. The holding portions protrude from upper and lower surfaces of the spinner body, respectively. The holders are adapted to rotate the toy top clockwise and counterclockwise according to rotation of the second gear by pulling the string.
SPINNER FOR TOY TOP
CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit under 35 U.S.C. Section 119 of Japanese Utility Model Application No. 2010-228, filed Jan. 15, 2010, which is hereby incorporated by reference in its entirety into this application.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention
[0003] The present invention relates to a spinner for a toy top that imparts rotation to the toy top and launches it, and more particularly to a spinner for a toy top that is capable of launching the toy top while rotating it in either a clockwise or a counterclockwise direction.

[0004] 2. Description of the Related Art
[0005] Conventionally, a spinner for a toy top has been proposed which enables a user to freely select either a clockwise rotation direction of the toy top or a counterclockwise direction and launches the toy top while rotating it in the selected direction (see Japanese Utility Model Registration No. 3098449). This spinner is provided in the inside of a spinner body, with a rotator and a pinion gear operatively coupled with the rotator. The rotator has a toy top mounting member formed on a lower portion thereof to protrude downward from the spinner body. The spinner body has two insertion passages formed therein for insertion of a rack belt therein and removal of the rack belt therefrom, which insertion passages are formed in parallel on both sides across the pinion gear so as to engage the rack belt with the pinion gear when the rack belt is inserted in either of the insertion passages. The rotation direction of the toy top can be selected depending on which of the two insertion passages the rack belt is to be inserted in.

[0006] Also, a spinner for a toy top capable of launching the toy top without the need to insert a rack belt each time has been proposed (see Japanese Utility Model Registration No. 3142475). This spinner includes a first gear having a string wound there around and engaged with a second gear, and a toy top holder that rotates with the second gear. One end of the string is attached to the first gear and the other is extended to the outside of a spinner body, so that when the string is pulled from outside, the toy top holder is rotated via the first gear and the second gear, thereby imparting rotation to the toy top held by the toy top holder.

[0007] In the former conventional spinner, when the rotation direction of the toy top is selected, the direction can be selected depending on which of the insertion passages of the spinner the rack belt is to be inserted in. However, since which insertion passage the rack belt is inserted in may be seen by an opponent, the opponent can possibly determine the rotation direction of the toy top, i.e. clockwise or counterclockwise. On the other hand, in the latter conventional spinner, although the spinner can launch a toy top by pulling operation of the string even without inserting a rack belt each time, the spinner can rotate the toy top only in one direction.

SUMMARY OF THE INVENTION

[0008] In view of the above problems of the conventional spinners, the present invention has been made. Accordingly, it is an object of the present invention to provide a spinner for a toy top capable of, when the toy top is launched, imparting to a toy top rotation in different directions, clockwise and counterclockwise directions, with the same operation of pulling a string, without requiring a selection of an insertion passage in which a rack belt is to be inserted depending on whether the rotation direction of the toy top is set in a clockwise or counterclockwise direction.

[0009] In order to solve the above problems, according to the present invention, there is provided a spinner for a toy top that imparts rotation to the toy top and launches the toy top. The spinner includes a spinner body, wherein the spinner body includes a first gear formed so as to have a string wound there around, a second gear meshing with the first gear, and a first toy top holder and a second toy top holder that rotate interlocking with the second gear, the string has one end thereof attached to the first gear and the other end thereof extending to the outside of the spinner body such that the other end thereof can be subjected to a pulling operation from the outside, the first and second toy top holders each include a holding portion for holding the toy top, the holding portion of the first toy top holder and the holding portion of the second toy top holder protrude outside from opposite surfaces of the spinner body, respectively, and the first toy top holder is adapted to rotate the toy top in a clockwise direction according to rotation of the second gear by a pulling operation of the string and the second toy top holder is adapted to rotate the toy top in a counterclockwise direction according to rotation of the second gear by a pulling operation of the string.

[0010] The spinner body may be formed such that an appearance thereof on a side on which the first toy top holder is disposed and an appearance thereof on a side on which the second toy top holder is disposed are substantially identical in design.

[0011] In an embodiment of the present invention, the spinner further includes a cap member for selectively covering the holding portion of one of the first and second toy top holders, wherein the opposite surfaces of the spinner body are an upper surface and a lower surface of the spinner body, each provided with a mounting portion for mounting the cap member thereto, and the spinner body has a ratchet disposed therein for preventing rotation of the second gear, wherein when the cap member is mounted to the mounting portion of either the upper surface and the lower surface of the spinner body, prevention of the rotation of the second gear by the ratchet is released.

[0012] In an embodiment of the present invention, the spinner body has an urging member disposed therein for urging the first gear in a direction of taking up the string, so that the pulled string may be automatically rewound.

[0013] In an embodiment of the present invention, the spinner body has clutches disposed between the second gear and the first toy top holder and between the second gear and the second toy top holder, respectively, so that an external force applied onto the first or second toy top holder can be prevented from being exerted onto the second gear.

[0014] In an embodiment of the present invention, the spinner body includes an upper casing and a lower casing, a ratchet is pivotally arranged in the vicinity of the second gear and includes an arm and a pawl disengageably engaging with the second gear, the cap member is formed in a cup shape and has at a lower end thereof engaging plates protruding downward, and the mounting portions include arcuate openings formed respectively in the upper casing and lower casing, into which openings the engaging plates of the cap member are inserted, one of the openings of each of the upper and lower
casings being disposed at a position corresponding to the arm of the ratchet, wherein when the engaging plates of the cap member are inserted in the openings and the cap member is turned, one of the engaging plates of the cap member engages with the arm of the ratchet and pushes away the arm, so that the pawl of the ratchet is disengaged from the second gear, resulting in the prevention of rotation of the second gear being released.

[0015] In an embodiment of the present invention, each of the engaging plates of the cap member has a thick portion at a distal end thereof; the create openings are each provided at a part thereof with an engaging portion having a narrow opening width, and the cap member is fixed to the spinner body by engagement of the thick portions of the engaging plates with the engaging portions of the openings.

[0016] According to the present invention, the rotation direction of the toy top can be selected by merely selecting the first toy top holder or the second toy top holder to hold the toy top. Therefore, rotation in different directions can be imparted to the toy top by the same operation of simply pulling the string.

[0017] According to one embodiment of the present invention, the spinner body has an appearance on the side from which the first toy top holder protrudes and an appearance on the side from which the second toy top holder protrudes, which are formed substantially identical to each other in design.

[0018] Therefore, it is extremely difficult for an opponent to judge, from the outer appearance of the spinner body, which toy top holder of the spinner body the toy top is held by, whereby one can advantageously conduct a match with the opponent.

[0019] According to one embodiment of the present invention, with the cap member being mounted on the spinner body, one of the toy top holders that does not have the toy top held thereon is not exposed, thereby positively preventing troubles, such as injury due to a contact with the toy top holder at the time of imparting rotation to the toy top.

[0020] Furthermore, unless the cap member is mounted, the second gear cannot rotate and the first gear engaging with the second gear cannot rotate either, so that the string cannot be pulled, resulting in a very safe spinner for a toy top being achieved.

[0021] According to one embodiment of the present invention, since the urging member urging the first gear in a direction of taking up the string is linked to the first gear, the string pulled out by pulling is automatically rewound, thereby avoiding the inconvenience of having to rewind by hand each time.

[0022] According to one embodiment of the present invention, even in the case where an undue force is applied to the toy top holder when the toy top is held by the first or second toy top holder, the first or second clutch can fend off the force, so that no load is imposed onto the second gear and other components that are mechanically connected to the second gear directly or indirectly, resulting in an occurrence of failure being prevented.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] FIG. 1 is a perspective view illustrating the structure of a spinner for a toy top according to an embodiment of the present invention;

[0024] FIG. 2 is an exploded perspective view illustrating the internal structure of a spinner body incorporated in the spinner;

[0025] FIG. 3 is a plan view showing an example of a toy top;

[0026] FIGS. 4A, 4B and 4C are a side view, a bottom view and a plan view of the spinner body, respectively;

[0027] FIG. 5A is a diagram illustrating a state where engaging plates of a cap member are inserted in openings of an upper casing of the spinner body so as to mount the cap member thereon. FIG. 5B is a diagram illustrating a state where a string is pulled while the cap member is mounted on the upper casing of the spinner body and locking of a ratchet is released, and FIG. 5C is a diagram illustrating a state where the string is pulled while the cap member is mounted on a lower casing and locking of the ratchet is released, respectively;

[0028] FIGS. 6A and 6B are perspective views illustrating states before and after the cap member is mounted on the spinner body, respectively; and

[0029] FIG. 7 is a perspective view illustrating a state of pulling the string and launching the toy top.

DESCRIPTION OF EMBODIMENTS

[0030] FIG. 1 is a perspective view showing a spinner A for a toy top according to an embodiment of the present invention, and FIG. 2 is an exploded perspective view illustrating the internal structure of the spinner A. The spinner A includes a spinner body 1 and is so constructed that the spinner A can impart rotation to a toy top B held on a first toy top holder 5 or a second toy top holder 6 and launch it by pulling a handle 2 disposed on the front side of the spinner body 1.

[0031] The spinner body 1 includes a lower casing 1a and an upper casing 1b and is formed in such a flat box shape that an appearance of the spinner body 1 on the bottom surface side and an appearance thereof on the top surface side are substantially identical in design. The spinner body 1 is provided at the inside thereof with a first gear 3 rotated via a string 7 by a pulling operation of the handle 2 and a second gear 4 meshing with the first gear 3 to be interlockedly rotated with the first gear 3. The spinner body 1 also includes two toy top holders, or the first toy top holder 5 and the second toy top holder 6, which are disposed so as to be vertically symmetric about the second gear 4 and to be interlockedly rotated with the second gear 4.

[0032] The first gear 3 has a drum 8 integrally formed on the upper surface thereof, which drum has one end of the string 7 fixed thereto and has the string 7 wound therearound. A cover 9 is disposed on the upper end of the drum 8 to prevent the wound string 7 from coming off from the drum 8. The cover 9 and the first gear 3 are coupled to a spiral spring case 11 by screws 10 so that the first gear 3 and the spiral spring case 11 can integrally rotate about a spindle 12.

[0033] The spiral spring case 11 is constituted by an upper case member 11a and a lower case member 11b, and has a spiral spring 13 accommodated therein, which serves as an urging member. The spiral spring 13 has an inner end or starting end 13a thereof fixed in a slit 15 formed in the spindle 12 and an outer end or terminating end 13b thereof fixed in a slit 16 formed in the lower case member 11b so as to urge the string 7 in a direction in which the string 7 is rewound around the drum 8. An upper portion 12a of the spindle 12 is formed in a rectangular column shape and fittedly held in a spindle
support portion (not shown) formed on the spinner body 1 so that the spindle 12 cannot rotate.

[0034] The string 7 is extended out of the spinner body 1 and has the handle 2 attached to the end thereof. The string 7 is preferably wound around the drum 8 such that the handle 2 abuts on a front end of the spinner body 1 when the spiral spring 13 has returned into a wound state.

[0035] The second gear 4 is disposed in the spinner body 1 so as to mesh with the first gear 3. The second gear 4 has a rotating shaft 17 with a lower end 17a and an upper end 17b each formed in a rectangular column shape. The lower end 17a and upper end 17b of the rotating shaft 17 are fit in fitting holes 20a and 21a of first and second clutches 20 and 21, respectively, so that the rotating shaft 17 and the first and second clutches 20 and 21 are formed into an integral structure.

[0036] A ratchet 18 is pivotally disposed in the vicinity of the second gear 4. The ratchet 18 has a pawl 18a normally engaging with the second gear 4 and locks the second gear 4 so as to prevent the second gear 4 from rotating in one direction or a clockwise direction in FIG. 2. The pawl 18a of the ratchet 18 is disengaged from the second gear 4 by engaging one of engaging plates 26 of a cap member 25, which will be described below, with an arm 18b of the ratchet 18 and then turning the cap member 25, to thereby release locking of the second gear 4.

[0037] Rotation of the second gear 4 is transmitted via the first clutch 20 to the first toy top holder 5 and via the second clutch 21 to the second toy top holder 6. The first and second clutches 20 and 21 are provided in order that when an excessive external force is applied to the first toy top holder 5 or second toy top holder 6, a corresponding one of the clutches 20 and 21 elastically deforms so as to allow the first toy top holder 5 or second toy top holder 6 to rotate relative to the second gear 4, to thereby prevent damage from being caused to the first gear 3, the second gear 4 or the like due to the external force.

[0038] The first toy top holder 5 is disposed below the second gear 4 and includes a pair of holding portions 23 which are formed thereon to protrude downward from the lower casing 1a of the spinner body 1 so as to engage with a pair of arcuate engaging holes 22 (see FIG. 3) formed in a toy top B. The holding portions 23 are each formed in an approximately L shape when viewed from the side so that when the holding portions 23 are inserted into the engaging holes 22 of the toy top B and the toy top B is then relatively turned, the distal ends of the L-shaped holding portions 23 are each engaged with a lower surface around edges of the engaging holes 22 of the toy top B, resulting in the toy top B being held by the holding portions 23. Incidentally, rear ends 23e of the holding portions 22 are each formed to be downwardly inclined to make the holding portions 23 narrow toward the lower end such that the held toy top B is easily released.

[0039] The second toy top holder 6 is disposed above the second gear 4. As with the first toy top holder 5, on the second toy top holder 6, a pair of holding portions 24 engageable with the pair of arcuate engaging holes 22 formed in the toy top B are also formed so as to protrude upward from the upper casing 1b of the spinner body 1. Like the holding portions 23 of the first toy top holder 5, these holding portions 24 are each formed in an approximately L shape when viewed from the side so that when the toy top B is turned while the holding portions 24 are engaged with the engaging holes 22 of the toy top B, the toy top B is held by the holding portions 24.

[0040] The holding portions 24, like the holding portions 23, are each formed to be tapered toward the distal end while having an inclined rear end 24a so as to allow the held toy top B to be easily released.

[0041] The cap member 25 is formed in a cup shape so as to selectively cover the holding portions 23 of the first toy top holder 5 or the holding portions 24 of the second toy top holder 6, which portions protrude from the spinner body 1. The cap member 25 has a pair of the engaging plates 26 formed at a lower end thereof so as to protrude downward. The engaging plates 26 have each a thick portion 27 formed at a lower end thereof that swells outward.

[0042] On the lower casing 1a and the upper casing 1b of the spinner body 1, openings 29 (see FIGS. 4B and 4C) are respectively formed so as to have the respective end faces of the toy top holders 5 and 6 exposed and so as to allow the respective holding portions 23 and 24 to protrude therefrom as depicted in a side view of FIG. 4A. Outside each of the openings 29, a mounting portion 30 to which the cap member 25 is mounted is formed. As depicted in a bottom view of FIG. 4B and a plan view of FIG. 4C, each mounting portion 30 is constituted by a pair of arc-shaped openings 31 or 32 which are formed to be point symmetric about the center of the first toy top holder 5 or second toy top holder 6. The openings 31 and 32 are respectively provided with engaging portions 33 and 34 each having a narrow opening width which is formed by part of a wall located at the outer side thereof swelling toward the center of the toy top holder. The pairs of openings 31 and 32 are arranged on the lower casing 1a and upper casing 1b, respectively, in such a manner that one of the openings 31 or 32 in each pair is located at a position corresponding to the arm 18b of the ratchet 18 as shown in FIGS. 4B and 4C.

[0043] When the engaging plates 26 of the cap member 25 are inserted in the respective openings 32, which are the mounting portion 30 of the upper casing 1b of the spinner body 1, and the cap member 25 is turned in a clockwise direction, the thick portion 27 of each of the engaging plates 26 engages with the engaging portion 34 of the opening 32, thereby fixing the cap member 25 on the spinner body 1. At this time, the cap member 25 is in a state in which it covers the holding portions 24 of the second toy top holder 6.

[0044] As described above, one of the pair of openings 32 is disposed at the position corresponding to the arm 18b of the ratchet 18 engaging with the second gear 4 (see FIGS. 4C and 5A). Accordingly, when the engaging plates 26 of the cap member 25 are inserted into the openings 32 and the cap member 25 is rotated in a clockwise direction, one of the engaging plates 26 is engaged with the arm 18b of the ratchet 18 of which the pawl 18a is engaging with the second gear 4 and the pawl 18a of the ratchet 18 is disengaged from the second gear 4 as depicted in FIG. 5B, thereby allowing rotation of the second gear 4 and also rotation of the first gear 3 engaging with the second gear 4. In this state, when the string 7 is pulled by pulling the handle 2, the drum 8 having the string 7 wound therearound is rotated and the first gear 3 integral with the drum 8 is rotated, and the second gear 4 meshing with the first gear 3 is rotated in turn, resulting in that the first toy top holder 5 that is connected to the second gear 4 via the first clutch 20 can be rotated.

[0045] The above description also applies to the case where the spinner body 1 is turned upside down and the cap member 25 is mounted to the openings 31, which is the mounting
portion 30 of the lower casing 1a of the spinner body 1, and therefore a description of this case is omitted herein. [0046] Now, a manner of using the spinner A for a toy top thus constructed will be described. First, it is decided whether to rotate a toy top B in a clockwise direction or a counterclockwise direction. When the toy top B is rotated in a clockwise direction, the orientation of the spinner body 1 is set with the first toy top holder 5 positioned below and the second toy top holder 6 positioned above as shown in FIG. 6A. Then the engaging plates 26 of the cap member 25 are inserted into the respective openings 32 of the upper casing 1b of the spinner body 1 and the cap member 25 is then rotated in a clockwise direction to engage the thick portions 27 of the engaging plates 26 with the respective engaging portions 34, so that the cap member 25 can be fixed to the spinner body 1. At this time, as described above, since rotation of the cap member 25 causes one of the engaging plates 26 to engage with the arm 18b of the ratchet 18 and push the arm 18b away, the ratchet 18 rotates outward to cause its pawl 18a to disengage from the second gear 4, so that the second gear 4 is allowed to rotate (see FIG. 5B).

[0047] After the cap member 25 is fixed to the spinner body 1, the holding portions 23 of the first toy top holder 5 are inserted into the respective engaging holes 22 of the toy top B and the toy top B is turned in a clockwise direction as viewed from the bottom side to be held on the holding portions 23 and as not to be detached from the holding portions 23. Thus, the toy top B is mounted on the spinner A (see FIG. 6B).

[0048] Even when the first toy top holder 5 is forcibly reversed by rotating the toy top B more than necessary, since the first toy top holder 5 and the second gear 4 are coupled to each other via the first clutch 20, a strong force does not act on the second gear 4 and the first gear 3.

[0049] After the toy top B is held by the first toy top holder 5, the spinner body 1 is held by one hand, and the handle 2 is grasped and vigorously pulled by the other hand. Since the string 7 is coupled to the handle 2, the toy top B is also released from the holding portions 23 and meshing with the first gear 3, which is forcibly rotated in a counterclockwise direction indicated by an arrow P. At this time, the spring case 11 is also rotated integrally with the first gear 3, but since the starting end 13a of the spiral spring 13 is attached to the slit 15 formed in the spindle 12, the terminal end 13b of the spiral spring 13 is rotated together with the spring case 11, so that the spiral spring 13 is wound up on the spindle 12.

[0050] When the first gear 3 is rotated in the counterclockwise direction, the second gear 4 meshes with the first gear 3 and is rotated in a clockwise direction indicated by an arrow Q, and the toy top B held by the first toy top holder 5 is also rotated in the clockwise direction.

[0051] When the pulling operation of the handle 2 is stopped, rotation of the first gear 3 stops, which results in stopping of the second gear 4, but the first gear 3 is urged in a reverse rotation direction by a winding-back force of the spiral spring 13 to be stopped rapidly so that the first toy top holder 5 integrated with the second gear 4 is also stopped rapidly.

[0052] Since the toy top B is rotating due to an inertial force even if the first toy top holder 5 stops, the toy top B rotates relative to the first toy top holder 5 so that the rear end edges of the engagement holes 22 of the toy top B abut on the inclined rear ends 23a of the holding portions 23 and are guided along the inclined rear ends 23a downwardly, so that the toy top B is released from the holding portions 23 while being rotated. Thus, the toy top B is launched from the spinner A in a state where the toy top B has a rotation in a clockwise direction imparted thereto, as shown in FIG. 7.

[0053] When the pulling force applied to the string 7 is loosened after launching of the toy top B, the first gear 3 and the drum 8 together with the spring case 11 are rotated in a clockwise direction by a rewinding force of the spiral spring 13 to wind the string 7 around the drum 8, so that the spinner A is returned to an initial state.

[0054] On the other hand, when the spinner body 1 is reversed so that the lower casing 1a is orientated upward to position the second toy top holder 6 below and the first toy top holder 5 above, the cap member 25 can be fixed to the spinner body 1 so as to cover the first toy top holder 5 through an operation similar to that in which the second toy top holder 6 is covered with the cap member 25 as described above, and the toy top B can be held by the holding portions 24 of the second toy top holder 6.

[0055] In this state, as shown in FIG. 5C, the string 7 is wound around the drum 8 in a clockwise direction, and the ratchet 18 is retracted outward by one of the engaging plates 26, so that the second gear 4 is allowed to rotate. When the spinner body 1 is held by one hand and the handle 2 is grasped and vigorously pulled by the other hand to pull the string 7, as shown in FIG. 5C, the first gear 3 is forcibly rotated in a clockwise direction indicated by an arrow R.

[0056] When the first gear 3 is rotated in the clockwise direction, the second gear 4 meshing with the first gear 3 is rotated in a counterclockwise direction indicated by an arrow S, and the toy top B held by the toy top holder 6 is also rotated in the counterclockwise direction.

[0057] When the pulling operation of the handle 2 is stopped, rotation of the first gear 3 stops, which results in stopping of the second gear 4, but the first gear 3 is biased in a reverse rotation direction by a winding-back force of the spiral spring 13 to be stopped rapidly so that the second toy top holder 6 integrated with the second gear 4 is also stopped rapidly.

[0058] Since the toy top B is rotating due to an inertial force even when the second toy top holder 6 stops, the toy top B is released from the holding portions 24 while rotating. Thus, the toy top B is launched from the spinner A in a state where the toy top B has a rotation in a counterclockwise direction imparted thereto.

[0059] The spinner A described above can launch the toy top B only by mounting the toy top B on the spinner body 1 and a pulling operation of the handle 2 to pull the string 7. Furthermore, the spinner A enables a user to freely select whether to rotate the toy top B in a clockwise direction or a counterclockwise direction by merely selecting on which surface of the spinner body 1 the toy top B is to be mounted. The spinner A is not required to perform such an operation as is performed with the conventional spinner for a toy top, i.e., an operation of inserting a rack belt in a spinner body and pulling out the inserted rack belt each time. Thus, according to the present invention, a spinner for a toy top which is capable of easily launching a toy top can be achieved.

[0060] Furthermore, since the string 7 cannot be pulled unless the cap member 25 is mounted on the spinner body 1, one pair of the pairs of first and second holding portions 23 or 24 that is not used for holding the toy top B cannot be rotated when the one pair is in an exposed state. Thus, a spinner for a toy top which is excellent in safety can be provided.
As described above, in the state where the cap member 25 is not mounted on the spinner body 1, the pawl 18a of the ratchet 18 engages with the second gear 4 to lock rotation of the second gear 4 in a clockwise direction (as seen in a plan view) to prevent the pulling operation of the string 7, whereas when the cap member 25 is mounted on the spinner body 1, the locking is released to allow the pulling operation of the string 7. On the other, when the cap member 25 is removed from the spinner body 1 in a state where the string 7 is being pulled, the pawl 18a of the ratchet 18 engages with the second gear 4 to lock the second gear 4. However, since the one purpose of this ratchet 18 is to lock rotation of the second gear 4 in a direction in which the string 7 is pulled out, the first gear 3 meshing with the second gear 4 starts, upon removal of the cap member 25, to rotate due to the rewinding force of the spiral spring 13 to wind up the string 7, thereby automatically returning the spinner A to an initial state.

1. A spinner for a toy top that imparts rotation to the toy top and launches the toy top, comprising:

- a spinner body, wherein the spinner body includes a first gear formed so as to have a string wound therearound, a second gear meshing with the first gear, and a first toy top holder and a second toy top holder that rotate interlockingly with the second gear,

- the string has one end thereof attached to the first gear and the other end thereof extending to the outside of the spinner body so that the other end thereof can be subjected to a pulling operation from the outside, the first and second toy top holders each include a holding portion for holding the toy top, the holding portion of the first toy top holder and the holding portion of the second toy top holder protrude outside from opposite surfaces of the spinner body, respectively, and

- the first toy top holder is adapted to rotate the toy top in a clockwise direction according to rotation of the second gear by a pulling operation of the string and the second toy top holder is adapted to rotate the toy top in a counterclockwise direction according to rotation of the second gear by a pulling operation of the string.

2. The spinner according to claim 1, wherein the spinner body is formed such that an appearance thereof on a side on which the first toy top holder is disposed and an appearance thereof on a side on which the second toy top holder is disposed are substantially identical in design.

3. The spinner according to claim 1, further comprising a cap member for selectively covering the holding portion of one of the first and second toy top holders, wherein

- the opposite surfaces of the spinner body are an upper surface and a lower surface of the spinner body, each provided with a mounting portion for mounting the cap member thereto, and

- the spinner body has a ratchet disposed therein for preventing rotation of the second gear, wherein when the cap member is mounted to the mounting portion of either of the upper surface and the lower surface of the spinner body, prevention of the rotation of the second gear by the ratchet is released.

4. The spinner according to claim 2, further comprising a cap member for selectively covering the holding portion of one of the first and second toy top holders, wherein

- the opposite surfaces of the spinner body are an upper surface and a lower surface of the spinner body, each provided with a mounting portion for mounting the cap member thereto, and

- the spinner body has a ratchet disposed therein for preventing rotation of the second gear, wherein when the cap member is mounted to the mounting portion of either of the upper surface and the lower surface of the spinner body, prevention of the rotation of the second gear by the ratchet is released.

5. The spinner according to claim 1, wherein the spinner body has an urging member disposed therein for urging the first gear in a direction of taking up the string.

6. The spinner according to claim 2, wherein the spinner body has an urging member disposed therein for urging the first gear in a direction of taking up the string.

7. The spinner according to claim 3, wherein the spinner body has an urging member disposed therein for urging the first gear in a direction of taking up the string.

8. The spinner according to claim 1, wherein the spinner body has clutches disposed between the second gear and the first toy top holder and between the second gear and the second toy top holder, respectively.

9. The spinner according to claim 2, wherein the spinner body has clutches disposed between the second gear and the first toy top holder and between the second gear and the second toy top holder, respectively.

10. The spinner according to claim 3, wherein the spinner body has clutches disposed between the second gear and the first toy top holder and between the second gear and the second toy top holder, respectively.

11. The spinner according to claim 5, wherein the spinner body has clutches disposed between the second gear and the first toy top holder and between the second gear and the second toy top holder, respectively.

12. The spinner according to claim 3, wherein the spinner body includes an upper casing and a lower casing, the ratchet is pivotally arranged in the vicinity of the second gear and includes an arm and a pawl disengagably engaging with the second gear, the cap member is formed in a cup shape and has at a lower end thereof engaging plates protruding downward, and the mounting portions include arcuate openings formed respectively in the upper casing and lower casing, into which openings the engaging plates of the cap member are inserted, one of the openings of each of the upper and lower casings being disposed at a position corresponding to the arm of the ratchet, wherein when the engaging plates of the cap member are inserted in the openings and the cap member is turned, one of the engaging plates of the cap member engages with the arm of the ratchet and pushes away the arm, so that the pawl of the ratchet is disengaged from the second gear, resulting in the prevention of rotation of the second gear being released.

13. The spinner according to claim 12, wherein each of the engaging plates of the cap member has a thick portion at a distal end thereof,

- the arcuate openings are each provided at a part thereof with an engaging portion having a narrow opening width, and

- the cap member is fixed to the spinner body by engagement of the thick portions of the engaging plates with the engaging portions of the openings.
14. A spinner for a toy top, comprising:
   a spinner body including a first gear, a second gear meshing
   with the first gear, and a first toy top holder and a second
   toy top holder that rotate with the second gear,
   a string having one end thereof attached to the first gear and
   another end thereof to be pulled from the outside,
   the first and second toy top holders each protruding outside
   from opposite surfaces of the spinner body, respectively, and
   the first toy top holder rotates the toy top in a clockwise
   direction, when the second gear is rotated by pulling the
   string, and the second toy top holder rotates the toy top
   in a counterclockwise direction when the second gear is
   rotated by pulling the string.
15. The spinner according to claim 14, wherein an appearance
   of the spinner body on the surface from which the first
   toy top holder protrudes and an appearance of the spinner
   body from the surface on which the second toy top holder
   protrudes are substantially identical.
16. The spinner according to claim 14, further comprising a
   cap member for covering one of the first and second toy top
   holders, wherein
   each of the opposite surfaces of the spinner body includes
   a mounting portion for mounting the cap member
   thereto, and
   the spinner body includes a ratchet for preventing rotation of
   the second gear, wherein, when the cap member is
   mounted to either mounting portion, prevention of the
   rotation of the second gear by the ratchet is released.
17. The spinner according to claim 14, wherein the spinner
   body has a member for urging the first gear to take up the
   string.
18. The spinner according to claim 14, wherein the spinner
   body has a clutch disposed between the second gear and the
   first toy top holder, and a clutch between the second gear and
   the second toy top holder, respectively.
19. The spinner according to claim 16, wherein the ratchet
   includes an arm and a pawl disengageably engaging with the
   second gear,
   the cap member has protruding engaging plates, and
   the mounting portions include arcuate openings into which
   the engaging plates are inserted, one of the openings
   being disposed at a position corresponding to the arm of
   the ratchet, wherein when the engaging plates of the cap
   member are inserted in the openings and the cap member
   is turned, one of the engaging plates of the cap member
   pushes the arm of the ratchet, so that the pawl of the
   ratchet is disengaged from the second gear, resulting in
   the prevention of rotation of the second gear being
   released.
20. The spinner according to claim 19, wherein each of the
   engaging plates has a thick portion at a distal end thereof,
   the arcuate openings are each provided with an engaging
   portion having a narrow opening width, and
   the cap member is fixed to the spinner body by engagement
   of the thick portions of the engaging plates with the
   engaging portions of the openings.
21. A spinner for a toy top, comprising:
   a spinner body, including a first gear, a second gear meshing
   with the first gear, and a first toy top holder and a second
   toy top holder that rotate with the second gear,
   a string having one end thereof attached to the first gear and
   another end thereof to be pulled from the outside,
   the first and second toy top holders each protruding outside
   from opposite surfaces of the spinner body, respectively, and
   the first toy top holder rotates the toy top in a clockwise
   direction, when the second gear is rotated by pulling the
   string, and the second toy top holder rotates the toy top
   in a counterclockwise direction when the second gear is
   rotated by pulling the string, wherein an appearance of
   the spinner body on the surface from which the first toy
   top holder protrudes and an appearance of the spinner
   body on the surface from which the second toy top holder
   protrudes are substantially identical; and
   a cap member for covering one of the first and second toy
   top holders.
22. The spinner according to claim 21, wherein:
   each of the opposite surfaces of the spinner body includes
   a mounting portion for mounting the cap member
   thereto, and
   the spinner body includes a ratchet for preventing rotation of
   the second gear, wherein, when the cap member is
   mounted to either mounting portion, prevention of the
   rotation of the second gear by the ratchet is released.
23. The spinner according to claim 21, wherein the spinner
   body has a member for urging the first gear to take up the
   string.
24. The spinner according to claim 21, wherein the spinner
   body has a clutch disposed between the second gear and the
   first toy top holder, and a clutch between the second gear and
   the second toy top holder, respectively.
25. The spinner according to claim 22, wherein the ratchet
   includes an arm and a pawl disengageably engaging with the
   second gear,
   the cap member protruding engaging plates, and
   the mounting portions include arcuate openings into which
   the engaging plates are inserted, one of the openings
   being disposed at a position corresponding to the arm of
   the ratchet, wherein when the engaging plates of the cap
   member are inserted in the openings and the cap member
   is turned, one of the engaging plates of the cap member
   pushes the arm of the ratchet, so that the pawl of the
   ratchet is disengaged from the second gear, resulting in
   the prevention of rotation of the second gear being
   released.
26. The spinner according to claim 25, wherein each of the
   engaging plates has a thick portion at a distal end thereof;
   the arcuate openings are each provided with an engaging
   portion having a narrow opening width, and
   the cap member is fixed to the spinner body by engagement
   of the thick portions of the engaging plates with the
   engaging portions of the openings.
27. The spinner according to claim 21, wherein the string
   cannot be pulled out, unless the cap member is mounted on
   one of the first and second toy top holders.

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