July 24, 1951 M. BARIST 2,561,554

DEVICE FOR SPINNING TOYS

Original Filed April 5, 1945 2 Sheets-Sheet 1

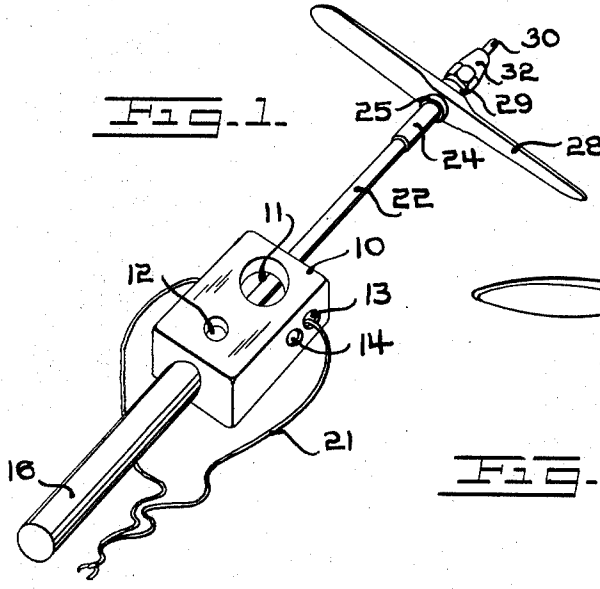


Fig. 1.

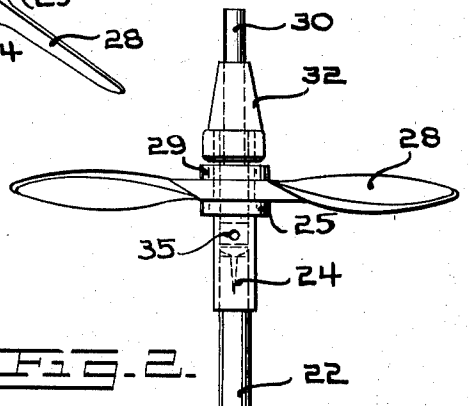


Fig. 2.

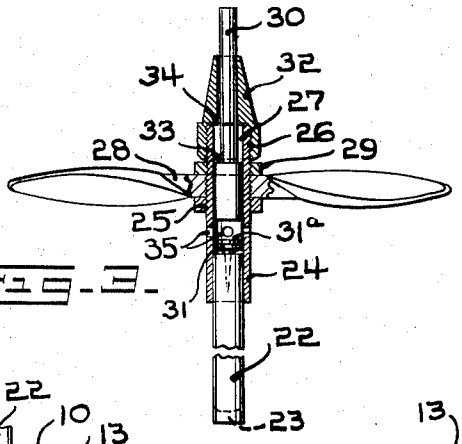
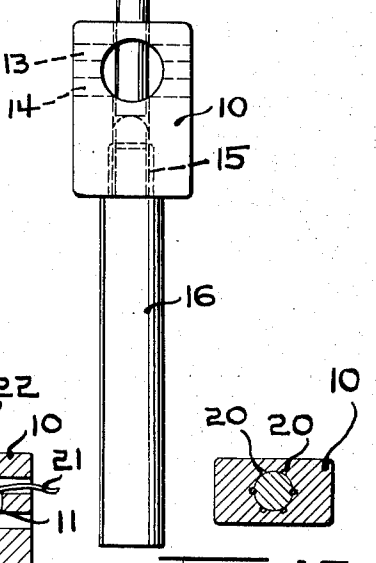


Fig. 3.



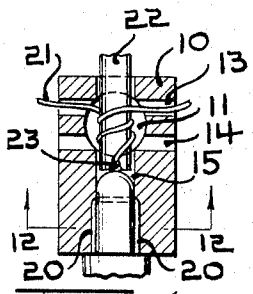


Fig. 4.

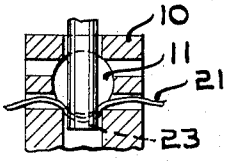


Fig. 5.

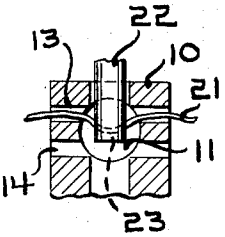


Fig. 6.

Fig. 12.

INVENTOR.
Michael Barist
BY
Zoltan A. Polacsek
ATTORNEY.

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DEVICE FOR SPINNING TOYS

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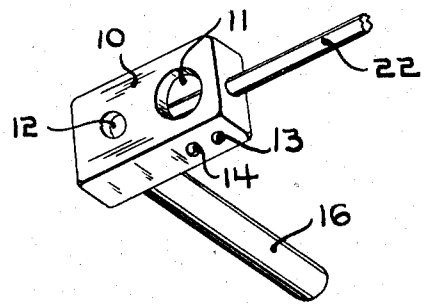


Fig. 7.

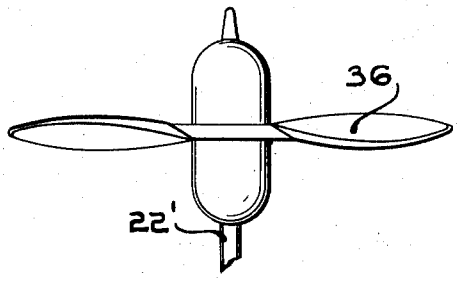


Fig. 8.

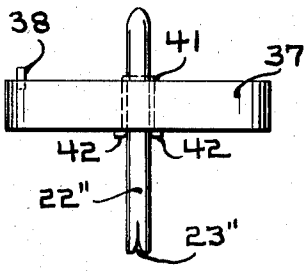


Fig. 9.

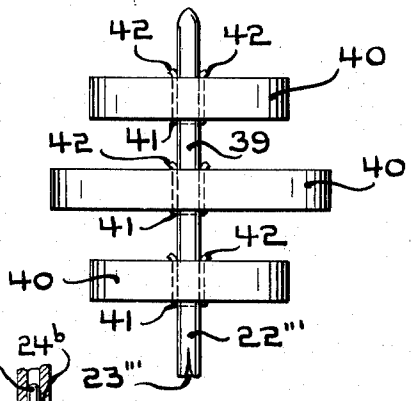


Fig. 10.

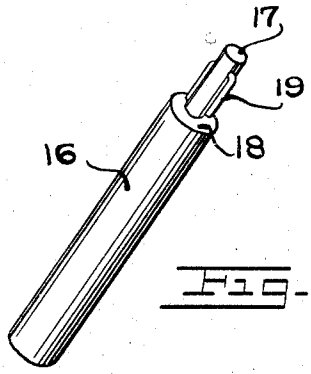


Fig. 11.

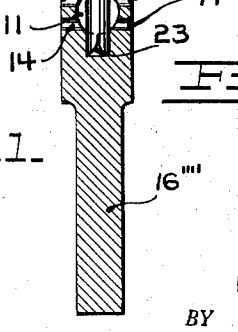


Fig. 13.

INVENTOR.
Michael Barist
BY
Zoltan Polacsek
ATTORNEY.

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UNITED STATES PATENT OFFICE

2,561,554

DEVICE FOR SPINNING TOYS

Michael Barist, New York, N. Y.

Substituted for abandoned application Serial No. 586,673, April 5, 1945. This application July 14, 1948, Serial No. 38,680

2 Claims. (Cl. 46—83)

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This invention relates to new and useful improvements in a spinning and throwing toy.

This is a substitute for my abandoned application, filed on April 5, 1945, Serial No. 586,673.

More specifically, the present invention proposes the construction of a toy characterized by having a mechanism for spinning and throwing a top or similar device, the force for impelling the device being a string manually wound up by rotating the device and manually unwound by a straight pull.

Still further, it is proposed to provide a toy as aforesaid adjustable to regulate the distance that the device is thrown.

Another object is to provide a toy as aforesaid adjustable to regulate the direction in which the device is thrown.

Still further, it is proposed to provide a toy as aforesaid in which the device is a rotary propeller.

Another object is to provide a toy as aforesaid in which the device is a rotary propeller provided with means for firing an exploding cap.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure—

Fig. 1 is a perspective view of a toy constructed in accordance with this invention, the device of the toy being a rotary propeller provided with means for firing an exploding cap.

Fig. 2 is an enlarged side view of the toy of Fig. 1.

Fig. 3 is an axial section through the device of the toy of Fig. 1, foreshortened and partly in full.

Fig. 4 is an axial section through a portion of the toy showing the manner of winding the impelling string, parts being shown in full.

Fig. 5 is an axial section through a portion of the toy showing the manner of engaging the string by the device, parts being shown in full.

Fig. 6 is a view similar to Fig. 5 showing the device inserted further into the body of the toy.

Fig. 7 is a perspective view of the toy showing an adjusted position of the body thereof.

Fig. 8 is a fragmentary view of a device constructed in accordance with a modification of this invention.

Fig. 9 is a side view of a modified form of device, namely, a top.

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Fig. 10 is a side view of another form of device adapted to be used with the toy.

Fig. 11 is a perspective view of a handle of the toy.

Fig. 12 is a section on the line 12—12 of Fig. 4.

Fig. 13 is a fragmentary vertical sectional view, showing another modification of the invention.

The toy, according to this invention, comprises a body 10, which may be a rectangular block of wood. The body has a large transverse bore 11 and in line therewith and therebelow, a small transverse bore 12. At right angles to and traversing the bore 11 are two bores 13 and 14, bore 13 being the uppermost. An axial bore 15 traverses all the other bores. Bore 15 at the bottom forms a socket for a handle 16, which has a small end 17 in bore 15 and a shoulder 18 abutting the bottom face of the body. A wire 19 extends through a bore in end 17 and extends down the sides thereof, forming two splines which coact with two grooves 20 in the socket, preventing the body from turning relative to the handle, and maintaining the two in assemblage. Other grooves 20 are also provided so that should two become worn, others are available. A string 21 extends through the bore 13, completing the toy except for the device which is to be spun and thrown.

There are three devices shown in the drawings suitable for use with the toy as thus far described. The device shown in Fig. 1 is a propeller device provided with means for firing an ordinary explosive cap such as is used in a cap pistol. The device includes a stem 22 having a notch 23 in its bottom. At the top of the stem is secured a metal barrel 24 having a threaded nut forming a shoulder 25, external threads 26 and an internal bore 27. A propeller 28 rests on the shoulder and is locked thereto by a nut 29.

A firing pin 30 is slidably disposed in bore 27, the end of the pin being adapted to engage the metallic head 31 which is secured to the inner end of stem 22 in the bore 27. A paper cap 31a filled with explosive may be disposed on end wall 31 to be fired, as will presently appear. Pin 30 is retained in the bore by a fitting 32 threaded on the barrel, the pin 30 having a shoulder 33 and the fitting 32 having a shoulder 34 for coacting with shoulder 33 to effect the retaining of the pin while permitting it to move. Pin 30 extends beyond fitting 32.

The operation of the toy is as follows: First fitting 32 is unscrewed and pin 30 removed from the barrel. Then a paper cup is put in bore 27 and the pin 30 and fitting 32 replaced. Next, the stem 22 is placed in the upper end of bore

15 as shown in Fig. 5 until the notch 23 engages the string 21. The stem 22 is then pushed further in and is rotated, winding the string 21 about it (Fig. 4) until only the short ends of the string protrude from the bore 13. These ends may be tied together, so that the string can not be inadvertently completely wound into the body.

The string is then pulled rapidly out of the body, spinning the stem 22. When the string is first pulled, it is at a low position in the body but it finally stretches across the bore 13, thus forcing the stem 22 out of the bore 15. This movement projects the spinning device from the body 10. Thus the device is simultaneously spun and thrown. The propeller whirls and the device flies through the air, finally falling earthward. It falls firing pin down, due to the weight at this end of the device. When the firing pin hits the ground, it is driven against the paper cap, driving this against the wall 31 and exploding it. Gas vents 35 are provided in the fitting for the escape of gas from the exploding cap. Thus the toy is not only a spinning and throwing toy, but also a noisemaker.

Should it be desired to throw the toy a shorter distance, the string may be put through bore 14, whereby in straightening out, it will not lift the stem 22 such a great distance. If desired, body 10 may be removed from handle 16 and handle 16 placed in bore 12, this bore being provided with grooves similar to grooves 20. Such a position is shown in Fig. 7 and may be used in throwing the device horizontally or sideways.

The device shown in Fig. 8 is a simple propeller 36 having a stem 22′ similar to stem 22. This propeller when thrown, simply whirls.

The device shown in Fig. 9 is a top 37 having a stem 22″ and a handle 38 for winding the top to wind the string.

The device shown in Fig. 10 is a top 39 having three spaced discs 40, the center disc being the largest in diameter, and a stem 22‴.

In both tops 37 and 39, when made of wood, the discs thereof are secured against rotation relative to the stem by means of a wire yoke 41 which passes through a bore in the stem and extends along the stem so that it presses tightly against the bore of the disc through which the stem extends. The ends of the yoke 41 are bent, providing flanges 42 for supporting the discs.

In Fig. 13 the handle 16⁗ is shown to be integral with the body 10⁗ and the stem 22⁗ is shown to be provided with a reduced free end 22^a, to form a shoulder 22^b on which a complementary shoulder 24^b of the barrel at 24⁗ is adapted to engage. In other respects this form of the invention is similar to the previous forms and the various parts may be recognized by corresponding reference numerals.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

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

1. A device for spinning an assembly having a projecting stem including a free end, comprising a handle, a block on one end of said handle, said block having an axial bore extended in from the end thereof remote from said handle to axially slidably and turnably receive the free end of the stem, said block having a transverse bore intermediate the ends of said axial bore to have the intermediate portion of a length of string passed therethrough, said transverse bore being extended through said axial bore, a length of string having its intermediate portion extended through said transverse bore, and a transverse notch in the free end of the stem to be seated over the intermediate portion of said string when the free end of the stem is inserted into said axial bore connecting the stem and said string so that said string will be wound on the stem as the stem is rotated within said axial bore.

2. A device for spining an assembly having a projecting stem including a free end, comprising a handle, a block on one end of said handle, said block having an axial bore extended in from the end thereof remote from said handle to axially slidably and turnably receive the free end of the stem, said block having a transverse bore intermediate the ends of said axial bore to have the intermediate portion of a length of string passed therethrough, said transverse bore being extended through said axial bore, a length of string having its intermediate portion extended through said transverse bore, and a transverse notch in the free end of the stem to be seated over the intermediate portion of said string when the free end of the stem is inserted into said axial bore connecting the stem and said string so that said string will be wound on the stem as the stem is rotated within said axial bore, said block having a large transverse bore traversing said axial bore and said transverse bore and through which the seating of said notch on the intermediate portion of said length of string can be viewed.

MICHAEL BARIST.

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