W. B. GILMORE.

SPINNING DEVICE.

APPLICATION FILED JULY 29, 1909.

945,934. Patented Jan. 11, 1910.

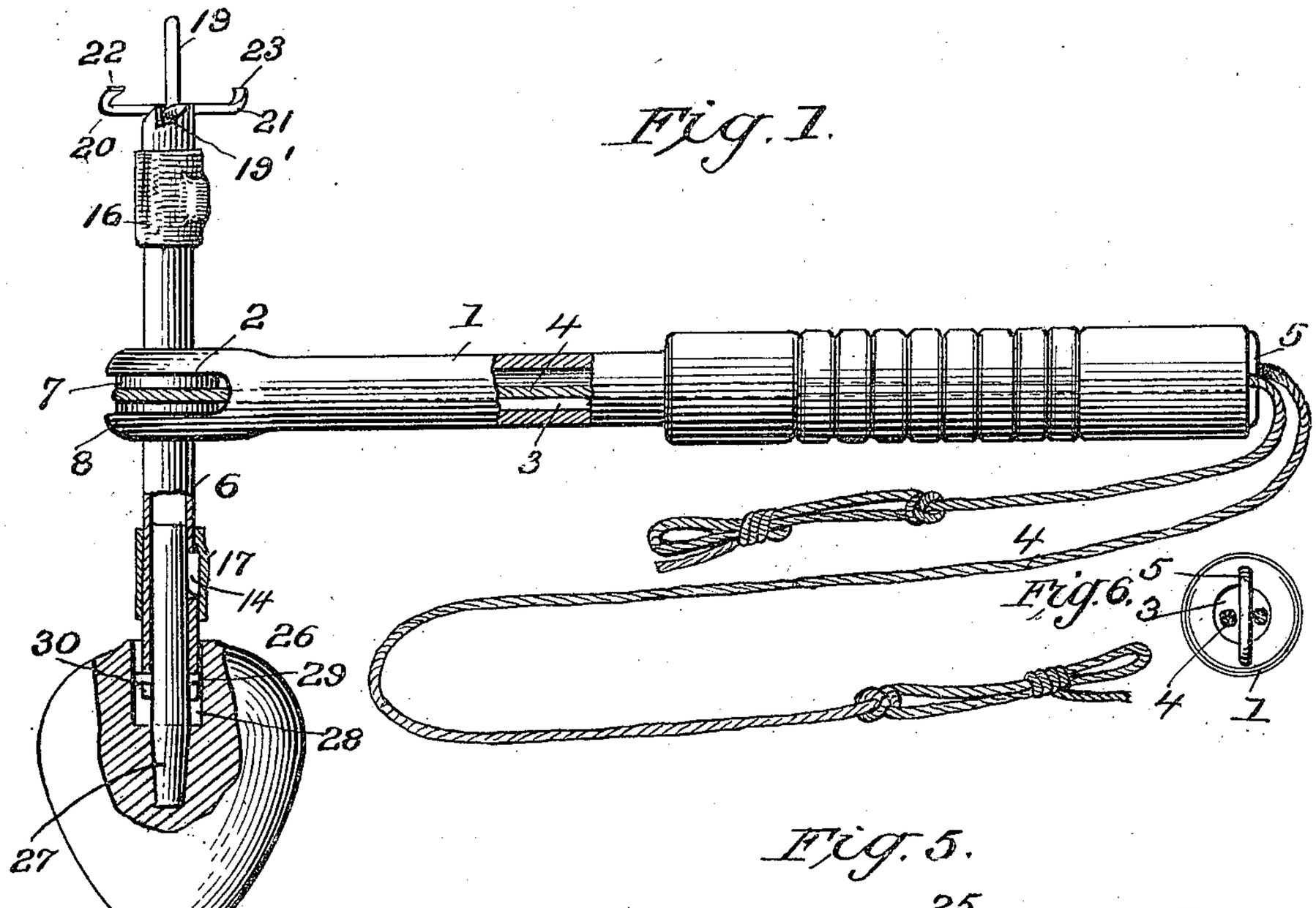


Fig. 1.

Fig. 6.

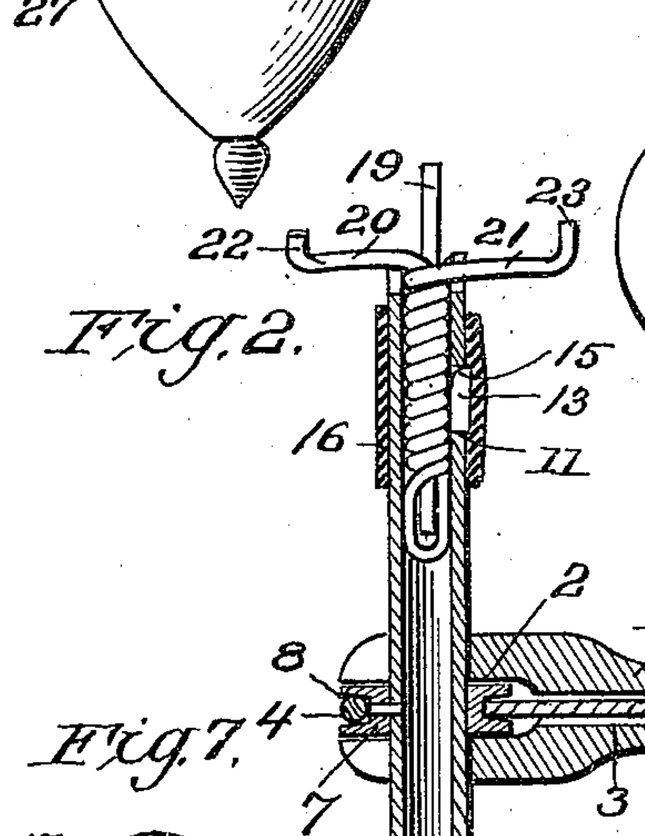


Fig. 2.

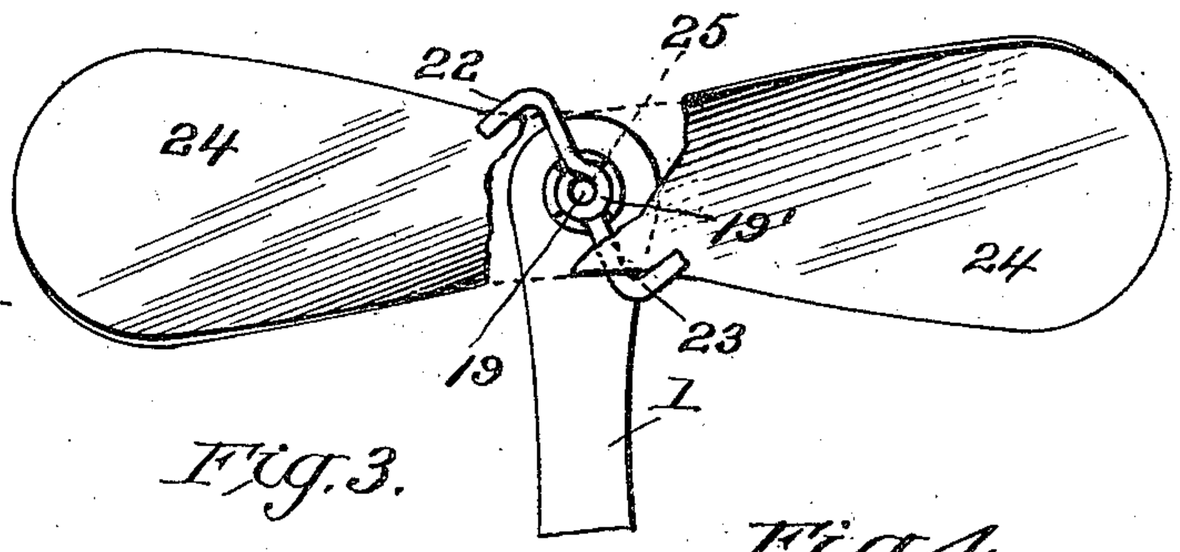


Fig. 3.

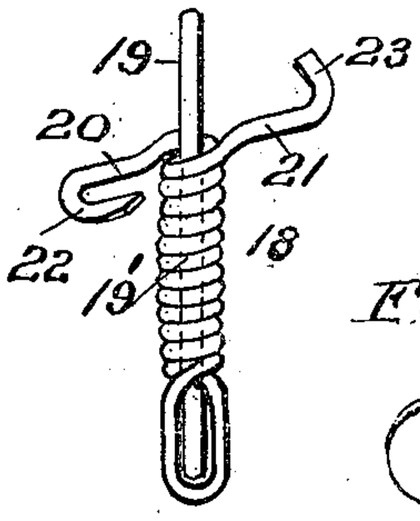
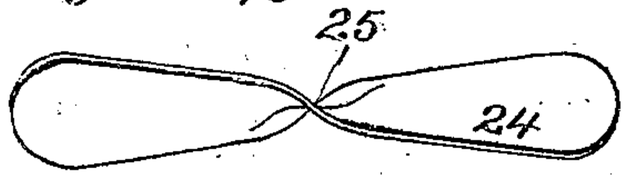


Fig. 4

Fig. 8.



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UNITED STATES PATENT OFFICE.

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SPINNING DEVICE.

945,934. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed July 29, 1909. Serial No. 510,177.

To all whom it may concern:

Be it known that I, WILLIS B. GILMORE, a citizen of the United States, residing at Idaho Springs, in the county of Clear Creek and State of Colorado, have invented certain new and useful Improvements in Spinning Devices; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved spinner for tops, fliers and similar devices.

The object of the invention is to provide a simply constructed device by means of which a top or flier may be revolved rapidly and ejected therefrom and caused to spin on the ground or to soar into the air as is desired.

Another object of the invention is to provide novel article engaging and releasing means especially adapted for use in connection with the flier.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a side elevation of this improved spinner with the top arranged in juxtaposition having a portion thereof broken out to show the means for connecting it with the spinner; Fig. 2 is a longitudinal section taken through the operating spindle of the spinner; Fig. 3 is a detail perspective view of the detachable flier engaging member; Fig. 4 is a detail perspective view of the gripping member detached; Fig. 5 is an end elevation showing a flier applied and having parts broken out.

Fig. 6 is an end elevation of the handle member; Fig. 7 is a transverse section taken on the line 7—7 of Fig. 2; Fig. 8 is a detail side elevation of the flier.

In the embodiment of the invention herein illustrated a tubular handle member 1 is shown which may be constructed of wood or any other suitable material and of a size to be conveniently grasped in one hand of the operator. This member 1 is provided at one end with a bifurcated head 2. This handle also has a bore 3 extending longitudinally throughout to receive an operating cord 4 and it is provided at its outer end with a bar 5 extending transversely across the opening or bore therein to separate the operating cord and prevent its becoming entangled.

A hollow spinning member or quill 6 extends transversely through the apertured arms of the bifurcated head 2 at right angles to the slot therein and is loosely mounted to revolve in said arms. This quill is preferably made in the form of a tube having a pulley 7 fixed thereto and mounted between the forked ends or arms of the head 2 and over which the operating cord 4 is designed to pass. This pulley 7 is preferably constructed as shown with a groove 8 therein made V shaped in cross section to provide for the frictional engagement of the string or cord with the sides thereof whereby reliable pulling action is obtained causing the spindle or quill 6 to be revolved therewith. This form of pulley is especially adapted for use with a loose string whereby the pulley and spindle to which it is attached are caused to revolve by simply pulling the string over the pulley. This string 4 is passed through the bore in the handle 1 on one side of the cross bar 5 around the pulley 7 back through the bore in the handle on the opposite side of the cross bar and both ends of said cord are preferably knotted to prevent their being withdrawn through the bore when in use and they also serve as gripping members for operating the string.

The hollow operating spindle 6 is provided at each end with a plurality of ratchet teeth arranged at diametrically opposite points to engage the laterally extending arms of a clutch member hereinafter to be described. Arranged adjacent to each of the toothed ends of the spindle preferably on opposite sides thereof are two apertures 11 and 12 which are preferably made rectangular as shown and in which are mounted detachable gripping members 13 and 14 which fit within said apertures and have their inner faces projecting beyond the inner face of the spindle to adapt them to grip the shank of the article to be revolved. The front ends of these detachable gripping blocks are preferably beveled on their lower

faces as shown at 15 to facilitate the insertion of the shank of the top or other member to be spun. These gripping members 13 and 14 are yieldably mounted in the recesses 11 and 12 by any suitable means preferably by means of rubber bands 16 and 17 which extend over the outer faces of the gripping members 13 and 14 around the tubular spindle and provide for the lateral movement of said gripping members to provide for the insertion and removal of the shanks of the toy to be revolved and to hold them in yieldable engagement with said toys.

The removable clutch member 18 is designed for use in spinning a flier or other similar device and is preferably made in the form of a pin 19 having a stiff wire 19′ doubled intermediately of its ends and coiled therearound for about three-fourths of its length and then having the ends of said wire bent laterally in opposite directions to form arms 20 and 21, the terminals of which are bent at right angles and extended in opposite directions and then bent upwardly to form inclined engaging hooks 22 and 23 for engaging the opposite sides of the blade of a flier 24 as is shown in Fig. 5, the uncovered portion of the pin projecting longitudinally between the arms and adapted to pass through the centrally disposed aperture 25 in the flier 24.

The top 26 designed for use in connection with this improved spinner has a spinning stem 27 projecting from the upper end thereof and having an annular space 28 arranged therearound with studs 29 and 30 projecting laterally at diametrically opposite points into said annular space below the upper end thereof and adapted to extend into the spaces between the teeth at the ends of the spindle 6, the stem 27 being of sufficient length to project into said spindle beyond the recess containing the gripping member whereby it is held yieldably in engagement with said spinner and revolved thereby, the ratchet teeth of said spindle being designed to slide freely over the pins when the spindle ceases and thereby eject the top from the spindle and causes it to be thrown onto the ground or other surface and spun in the usual manner.

When the flier is engaged with the lateral hooked arms of the removable clutch member and the spindle is revolved said flier is held by said arms and turned rapidly therewith until on the sudden stoppage of the spindle it is ejected into the air and continues to spin and to soar a considerable distance into the air.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

I claim as my invention.

1. A spinner for toys comprising a handle member, a hollow spindle revolubly mounted therein and provided at opposite ends with article engaging means and a yieldable gripping member extending laterally into said spindle near one end thereof.

2. A spinner for toys comprising a handle member, a hollow spindle revolubly mounted therein at right angles thereto and provided at one end with a plurality of ratchet teeth, a recess extending through the wall of said spindle near said ratchet teeth and a gripping member yieldably mounted in said recess with its inner face projecting beyond the inner face of said spindle.

3. A spinner for toys comprising a handle member, a hollow spindle revolubly mounted therein at right angles thereto and provided at one end with a plurality of ratchet teeth, a recess extending through the wall of said spindle near said ratchet teeth, a gripping member yieldably mounted in said recess with its inner face projecting beyond the inner face of said spindle and having its front end beveled to facilitate the insertion of the article to be operated.

4. A spinner for toys comprising a handle member, a tubular spindle revolubly mounted therein and projecting on opposite sides thereof, each end of said spindle being provided with a plurality of ratchet teeth extending longitudinally of said spindle and having spaces therebetween arranged at diametrically opposite points and laterally yieldable gripping members projecting into said spindle near opposite ends.

5. A spinner for toys comprising a revolubly mounted hollow spindle provided at one end with a laterally yieldable gripping member extending into said spindle through one wall thereof.

6. A spinner for toys comprising a handle member, a hollow spindle revolubly mounted therein and provided near one end with a laterally yieldable gripping member projecting into said spindle, clutch teeth formed on the end of said spindle and a removable clutch member having a shank for insertion within the said spindle for yielding engagement with said gripping member and having extending arms adapted to engage said clutch teeth, said arms having their ends bent at right angles and inclined in opposite directions to form article engaging members.

7. A spinner for toys comprising a handle member, a hollow spindle revolubly mounted therein and provided near one end with a laterally yieldable gripping member pro-

jecting into said spindle, clutch teeth formed on the end of said spindle and a removable clutch member having a shank for insertion within the said spindle for yielding engagement with said gripping member and having laterally extending arms adapted to engage said clutch teeth said arms having their ends bent at right angles and inclined in opposite directions to form article engaging members and a pin extending longitudinally of said member between said lateral arms.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIS B. GILMORE.

Witnesses:
LEWIS OLIVER,
W. N. WYKOFF.