July 29, 1969 J. GREEN 3,457,669

SPINNING BALLOON DEVICE

Filed Sept. 1, 1965

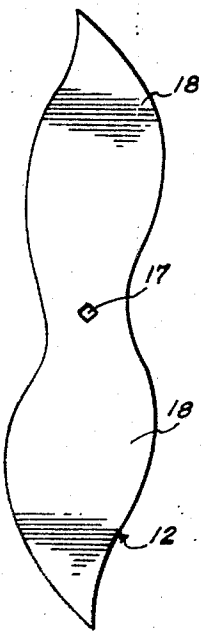


FIG. 2.

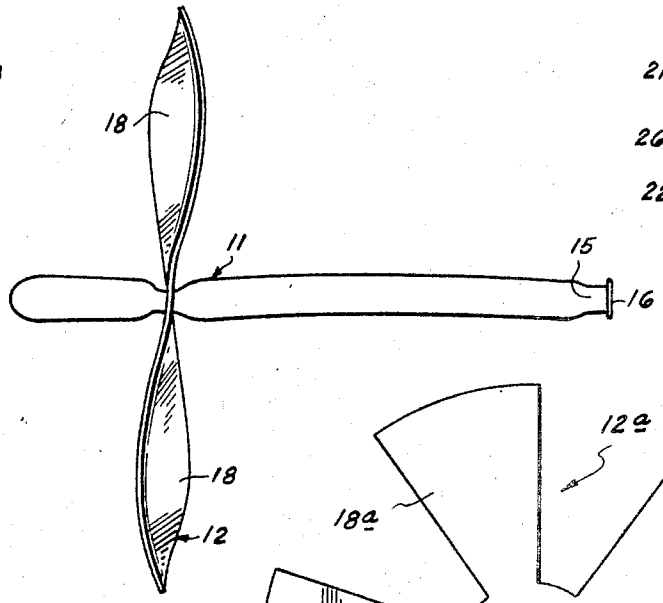
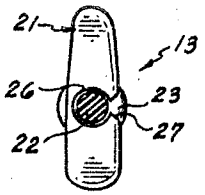


FIG. 3.

FIG. 5.



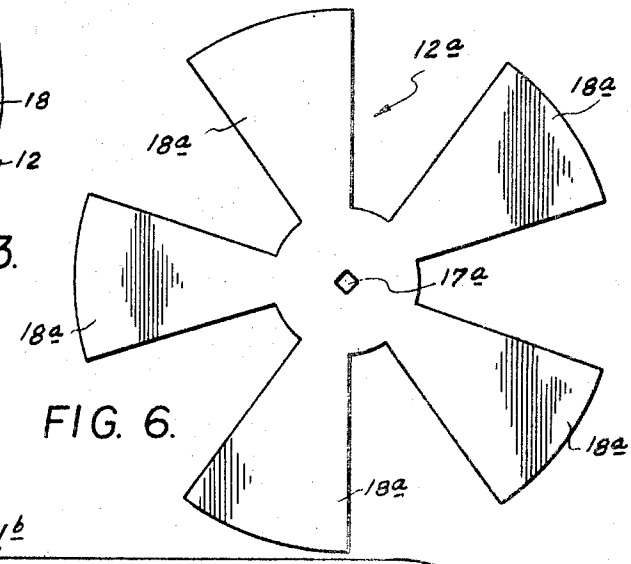


FIG. 6.

FIG. 1.

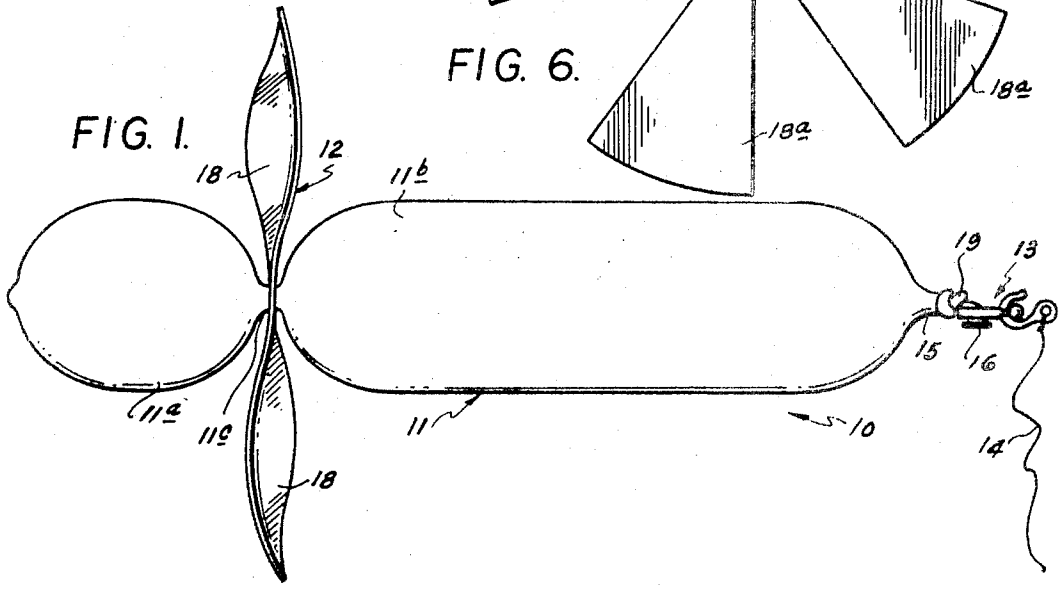
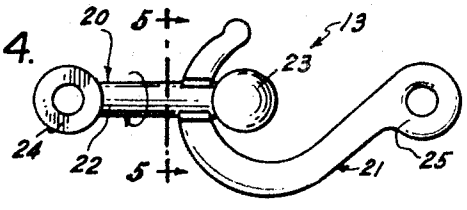


FIG. 4.



INVENTOR
JOSEPH GREEN

BY

ATTORNEY

United States Patent Office 3,457,669 Patented July 29, 1969

3,457,669

SPINNING BALLOON DEVICE

Joseph Green, Hewlett, N.Y., assignor to Miner Industries, Inc., New York, N.Y., a corporation of Delaware

Filed Sept. 1, 1965, Ser. No. 484,188
Int. Cl. A68h 27/06, 27/10
U.S. Cl. 46—53 5 Claims

ABSTRACT OF THE DISCLOSURE

An elongated balloon is extended longitudinally through a non-circular central hole in a substantially rigid propeller member so as to dispose substantial portions of the balloon at opposite sides of the propeller member for securing the latter on the balloon upon inflation thereof and the balloon is held by a string joined to the neck of the balloon through relatively rotatable coupling members to avoid twisting of the spring in response to rotation of the balloon by the action of the propeller member.

This invention relates to a spinning balloon device for use as a toy or decoration.

An object of this invention is to provide a toy or decoration that includes an inflated rubber balloon which is made to spin or rotate in response to relative movement of air past the balloon, thereby affording a novel and attractive appearance to the device.

Another object is to provide a spinning balloon device which is simple and inexpensive to manufacture and assemble.

A further object is to provide a device of the described character having attaching means by which the balloon may be held or secured while permitting rotation or spinning of the balloon.

In accordance with an aspect of this invention, a balloon, preferably of elongated configuration, extends through a central hole formed in a propeller member so that the latter constricts the balloon when inflated and thereby secures the propeller member on the balloon, and attaching means are connected to the balloon, preferably at the usual neck provided for inflation of the balloon, so as to permit rotation of the balloon by the propeller member in response to relative movement of air past the balloon and propeller member.

The above, and other objects, features and advantages of the invention, will be apparent in the following detailed description of illustrative embodiments thereof which is to be read in connection with the accompanying drawing, wherein:

FIG. 1 is a side elevational view of a spinning balloon device embodying this invention;

FIG. 2 is an elevational view of a propeller member included in the spinning balloon device of FIG. 1;

FIG. 3 is a side elevational view illustrating the assembling together of the balloon and propeller member prior to inflation of the balloon;

FIG. 4 is an enlarged elevational view of a coupling assembly included in the device of FIG. 1;

FIG. 5 is a sectional view taken along the line 5—5 on FIG. 4; and

FIG. 6 is a view similar to that of FIG. 2, but showing a modified form of propeller member.

Referring to the drawing in detail, and initially to FIG. 1 thereof, it will be seen that a spinning balloon device **10** embodying the invention, as there shown, generally comprises a balloon **11**, a propeller member **12**, and a coupling assembly **13** by which the balloon **11** is secured to a string **14**, stick or other means for anchoring or holding the device **10** during its operation.

As shown particularly on FIG. 3, the balloon **11** is of

a conventional type formed of rubber or other elastic material, and is preferably of elongated configuration with a neck **15** at one end formed with a rim or bead **16** extending around its mouth through which the balloon may be inflated. Prior to inflation of the balloon **11**, the latter is extended lengthwise through a relatively small hole **17** formed at the center of propeller member **12**. The hole **17** is preferably non-circular, for example, of square configuration, as shown, so that when balloon **11** is inflated to form inflated portions **11***a* and **11***b* at opposite sides of propeller member **12** with a constriction **11***c* at the location of the propeller member, as shown on FIG. 1, the non-circular configuration of hole **17** grips the balloon at the constriction **11***c* to prevent rotation of the propeller member relative to the balloon.

The propeller member **12**, which is formed of any suitably rigid material, such as, for example, blow-molded plastic or stiff cardboard, lies generally in a plane normal to the longitudinal axis of the elongated balloon **11** and includes vane-like portions **18** which are twisted, as is apparent on FIGS. 1 and 3, so as to lie at an angle to such plane. The propeller member **12** may include only two oppositely directed vane-like portions **18**, as shown on FIG. 2, or, as shown on FIG. 6, a propeller member **12***a* may be provided with a greater number of vane-like portions **18***a* which are equally, angularly spaced about the central hole **17***a*. It is further apparent that the vane-like portions **18** or **18***a* of the propeller member may have various peripheral configurations for enhancing the appearance of the balloon device **10**.

After the balloon **11** has been inflated, its neck **15** is knotted, as at **19** (FIG. 1), or otherwise closed, and then engaged with the coupling assembly **13**.

As shown particularly on FIGS. 4 and 5, the coupling assembly **13** includes two relatively rotatable coupling members **20** and **21** so that, when the balloon is secured to coupling member **20** and coupling member **21** is secured to the string **14**, the balloon **11** is free to spin or rotate about its longitudinal axis without causing twisting of the string **14**.

In the arrangement shown, coupling member **20** includes a stem **22** of circular cross-section having a ball **23** and an eye or ring **24** formed integrally therewith at the opposite ends of stem **22**. The coupling member **21** is shown to be generally of hook-shaped configuration and is formed with an attaching eye **25** and a bore **26** (FIG. 5) which extends through the bight of the hook-shaped form and which opens at one side thereof through a slot **27** having converging sides. Both coupling members **20** and **21** may be formed of molded plastic and are assembled together by snapping the stem **22** of coupling members **20** laterally through the slot **27** into bore **26** of coupling member **21**. Axial removal of coupling member **20** from coupling member **21** is prevented by the ball **23** having a greater diameter than the bore **26**, while the diameter of the stem **22** is slightly smaller than that of the bore **26**, but greater than the width of slot **27** at the inner end of the latter. Thus, stem **22** is free to rotate within bore **26**.

After the neck **15** of inflated balloon **11** has been knotted or otherwise closed, the mouth portion of the neck is passed through eye **24** of coupling member **20** and is thereafter retained or held against inadvertent removal from eye **24** by means of the bead or thickened rim **16** extending around the mouth. Finally, the string **14** is connected to coupling member **21**, as by knotting the string through eye **25** of that coupling member.

When the above described device **10** is held or secured by the string **14** and there is a relative movement of air past the balloon **11** and propeller member **12**, for example, as a result of a breeze or of moving the device **10** through the air, such relative air movement acts on the

vane-like portions **18** of propeller member **12** to effect rotation thereof. Since propeller member **12** is held against relative rotational movement with respect to inflated balloon **11**, the latter turns with the propeller member and thereby provides a novel and attractive appearance which may be further enhanced by printing or otherwise forming various colored designs on the balloon **11**. Such attractive and novel appearance of the spinning balloon device **10** makes the latter particularly suited as a toy or decoration.

What is claimed is:

1. The combination of a substantially rigid propeller member having a central, non-circular hole, (a) an elongated balloon extending through said hole so as to have substantial portions of said balloon disposed at opposite sides of said propeller member to secure said propeller member on said balloon when the latter is inflated, and attaching means connected to said balloon and permitting rotation of the balloon by said propeller member in response to relative movement of air past said balloon and propeller member.

2. The combination as in claim **1**; wherein said attaching means includes relatively rotatable coupling members.

3. The combination as in claim **2**; wherein said balloon has a neck through which the balloon is inflated and which is grasped by one of said coupling members.

4. The combination as in claim **3**; wherein said attaching means further includes a string extending from the other of said coupling members so that twisting of said string in response to rotation of the balloon is avoided by relative rotation of said coupling members.

5. The combination as in claim **1**; wherein said propeller member extends generally in a plane normal to the longitudinal axis of the balloon and has vane-like portions at an angle to said plane for rotation by said relative movement of air past said balloon and propeller member.

References Cited

UNITED STATES PATENTS

1,725,831	8/1929	Sherman	46—88
1,994,842	3/1935	Turner	46—89
1,967,138	7/1934	Wiener	46—87

F. BARRY SHAY, Primary Examiner

C. R. WENTZEL, Assistant Examiner

U.S. Cl. X.R.

46—88