

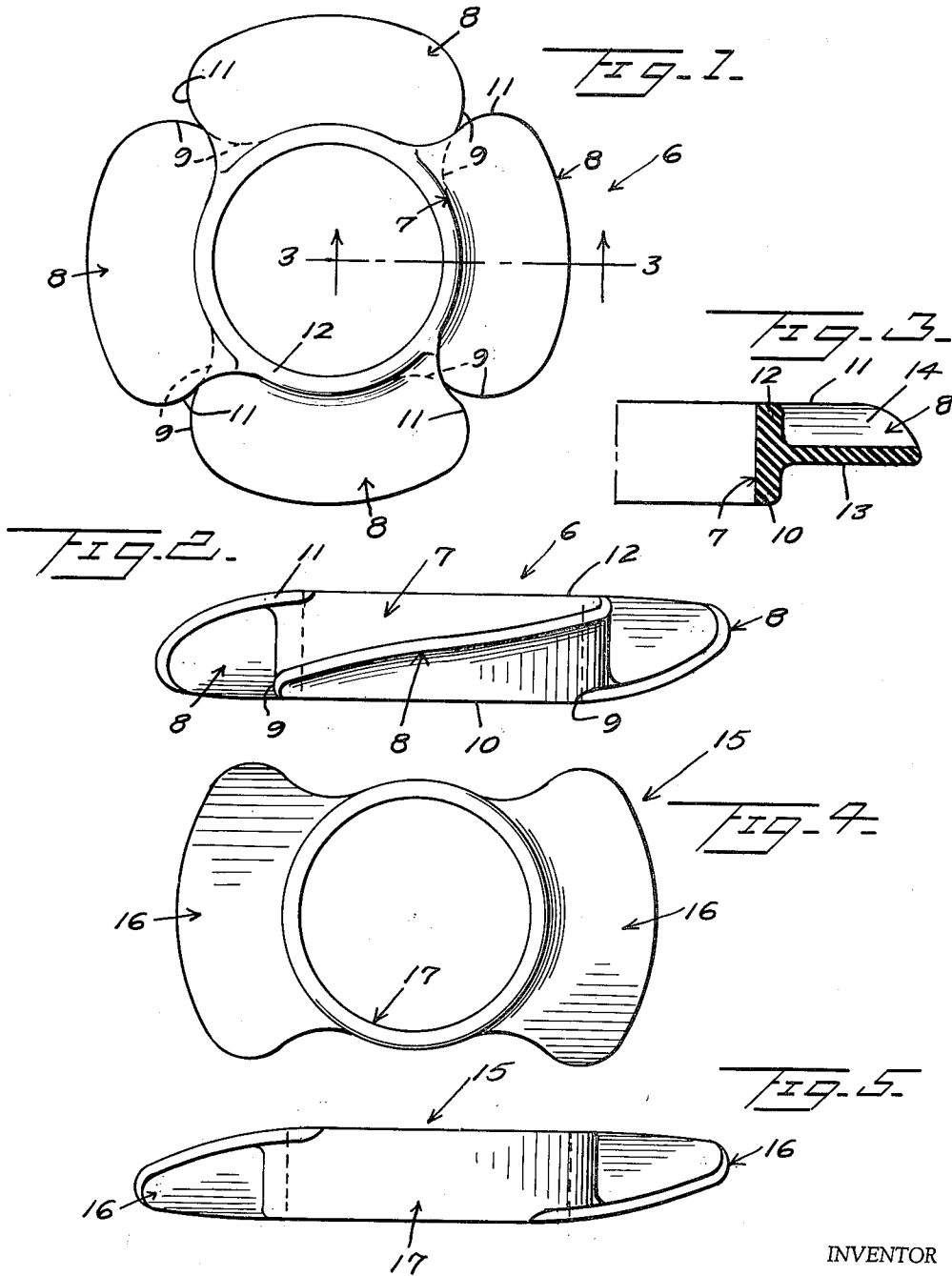
Nov. 30, 1965

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3,220,142

AERIAL TOY

Filed Sept. 4, 1964



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3,220,142

AERIAL TOY

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Filed Sept. 4, 1964, Ser. No. 394,444

5 Claims. (Cl. 46—82)

This invention relates to a novel aerial toy intended to be thrown in a manner to cause the toy to revolve, and which is so constructed that rotation of the toy in one direction when thrown will cause it to ascend while rotation of the toy in the opposite direction will cause it to descend.

More particularly, it is an object of the invention to provide an aerial toy in the form of a bladed quoit, the blade or blades of which are pitched and disposed externally of a ring-shaped hub to which the blades are attached.

A further object of the invention is to provide an aerial toy for use by children or adults for amusement when hurled through the air, as a projectile for use in games of skill, or as a target for trap and skeet shooting.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing illustrating presently preferred embodiments thereof, and wherein:

FIGURE 1 is a plan view of one embodiment of the toy;

FIGURE 2 is an enlarged side elevational view thereof;

FIGURE 3 is an enlarged fragmentary radial sectional view taken substantially along a plane as indicated by the line 3—3 of FIGURE 1;

FIGURE 4 is a top plan view of another embodiment of the toy; and

FIGURE 5 is an enlarged side elevational view looking from the bottom toward the top of FIGURE 4.

Referring more specifically to the drawing, and first with reference to FIGURES 1 to 3, the aerial toy or projectile disclosed therein is designated generally 6 and includes an annular or ring-shaped hub 7 and four corresponding pitched blades, each designated generally 8. As illustrated in FIGURE 3, the blades 8 are formed integral with and extend outwardly from the exterior of the hub 7. The blades 8 are pitched in the same direction and each blade has a lower end 9 disposed at approximately the level of the bottom edge 10 of the hub 7, and an upper end 11 which is disposed at approximately the level of the upper edge 12 of the hub 7. Each blade 8 is of a length slightly greater than one-fourth of the circumference of the hub 7, so that the ends 9 and 11 of the adjacent blades slightly overlap, as seen in FIGURE 1.

The toy 6 may be made in a variety of sizes and of numerous materials. The toy 6 as shown in FIGURE 3 is formed of rubber to minimize the risk of the toy causing injury or damage if it should inadvertently strike a person or object. However, the toy may be formed of numerous other materials including plastics and metals, and may be formed of a frangible material or a buoyant material.

The toy 6 is grasped for throwing by one of the blades 8 between the thumb and index finger. If hurled with the right hand with the hand disposed between the body of the user and the toy, it will revolve counterclockwise with the upper ends 11 constituting the leading ends, as seen in FIGURE 1, so that air impinging against the undersides 13 of the blades 8 will cause the toy to ascend and remain airborne until its rotational speed diminishes substantially, and may thus be employed as an aerial projectile for amusement, and may be made of various colors to enhance its eye appeal while in flight. The toy 6 may also be twirled from the right hand and with the arm

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across the body or with the toy disposed between the user's body and the hand so as to revolve in the opposite direction or clockwise, as seen in FIGURE 1. When thus thrown, the lower ends 9, rather than the upper ends 11, will constitute the leading ends of the blades 8, so that air impinging against the upper surfaces 14 of the blades tend to cause the toy to descend. The toy 6 is normally thus utilized in the play of games, such as a game similar to horseshoes when the toy is thrown toward a stake or towards any other selected target.

The projectile 6 may also be formed of a frangible material for use as a target for trap or skeet shooting; or may be formed of a buoyant material for use as a water toy and may be twirled so as to revolve clockwise, as seen in FIGURE 1, and be caused to skip along the surface of a body of water.

The aerial toy may include one or any number of blades. FIGURES 4 and 5 illustrate another embodiment of the toy, designated generally 15, which is different from the toy 6 only in that it is provided with two blades 16 rather than four blades. Blades 16 are also pitched in the same direction, as seen in FIGURE 5, so that the toy 15 may be utilized in the same manner as the toy 6, as previously described. The blades 16 may be formed integral with the hub 17 of the toy 15 in the same manner as illustrated in FIGURE 3, with reference to the hub 7 and blades 8.

It will also be apparent that the blades 8 of the toy 6 and the blades 16 of the toy 15 could be pitched in the opposite direction for use by a left handed person.

Various other modifications and changes are contemplated and may be resorted to without departing from the function or scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. An aerial projectile consisting of an annular band defining a ring-shaped hub, said band being wide in a direction parallel to the central axis of the hub, a plurality of blades fixed to and disposed externally of said hub, said blades having a length substantially greater than their width, the major axes of said blades extending in a direction circumferentially of the hub and said blades being pitched in the same direction, said hub having a top edge and a bottom edge, each blade having an upper end disposed at approximately the level of the upper edge of the hub and a lower end disposed at approximately the level of the bottom edge of the hub, and all of said ends of the blades being disposed in partially overlapping relation to one another, said hub having an internal diameter substantially greater than the width of the blades.

2. An aerial toy or projectile as in claim 1, said hub and blades being of one piece construction.

3. An aerial toy or projectile as in claim 1, said blades being formed of a yieldable material.

4. An aerial toy or projectile as in claim 1, said hub and blades being formed of a frangible material.

5. An aerial toy or projectile as in claim 1, said hub and blades being formed of a buoyant material.

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