United States Patent

Henderson

[15] **3,665,641**

[45] **May 30, 1972**

[54] SPIN DOWN

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[22] Filed: **July 29, 1968**

[21] Appl. No.: **748,484**

[52] **U.S. Cl.** **46/81**

[51] **Int. Cl.** **A63h 27/14**

[58] **Field of Search** 46/81; 124/20, 22

[56] **References Cited**

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Assistant Examiner—D. L. Weinhold
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[57] **ABSTRACT**

A toy comprising a airfoil launched from a sling shot type of launcher, the airfoil having a contour which will cause it to spin on its descent after having been projected into the air.

2 Claims, 4 Drawing Figures

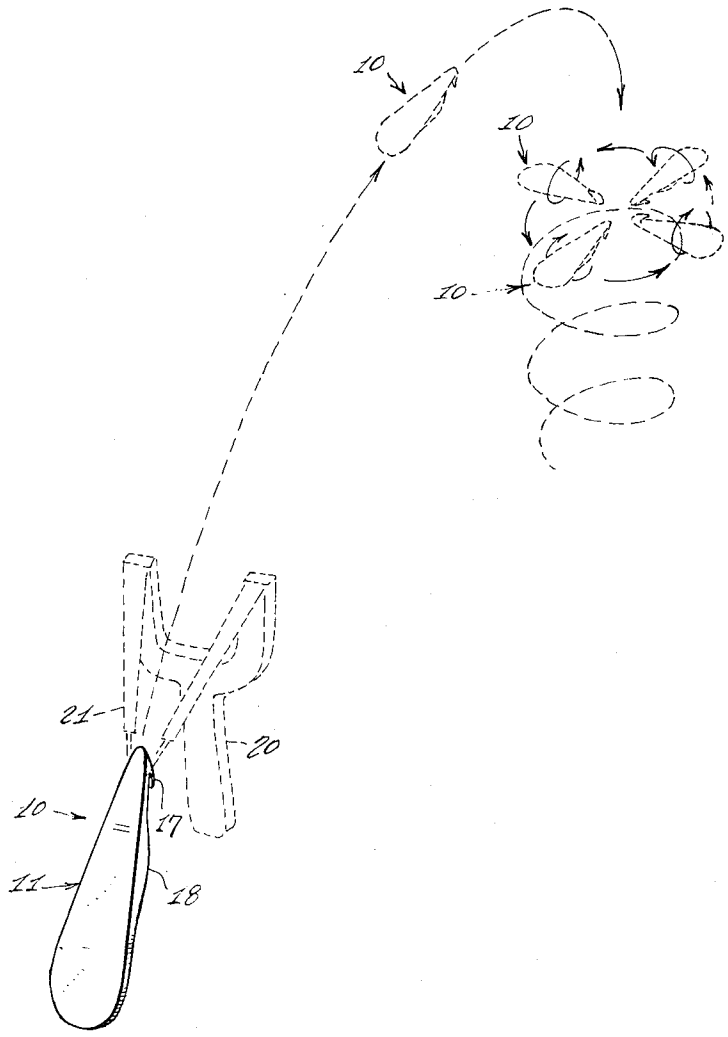
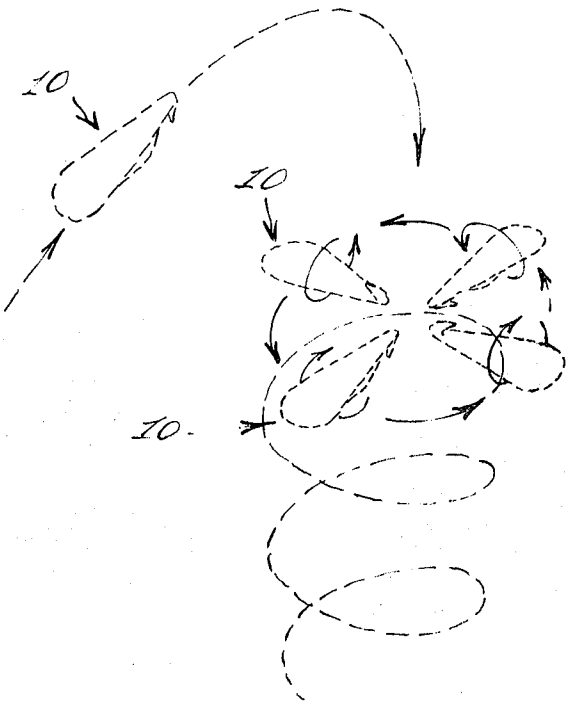


Fig. 1



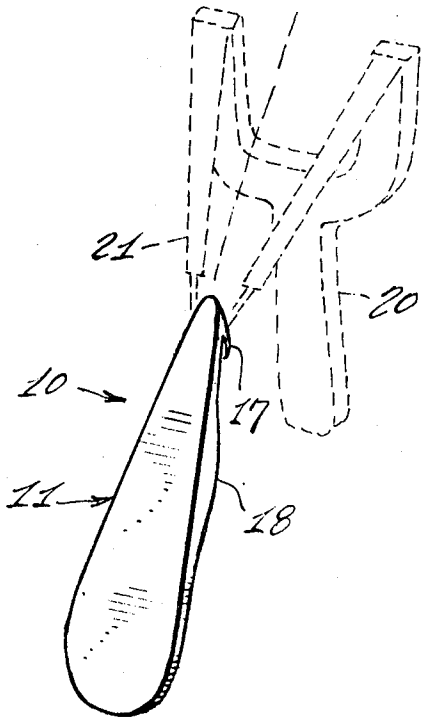


Fig. 2

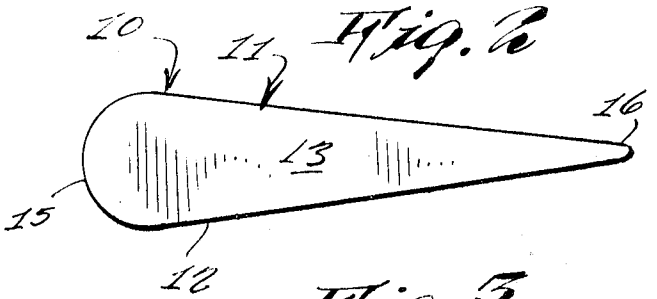


Fig. 3

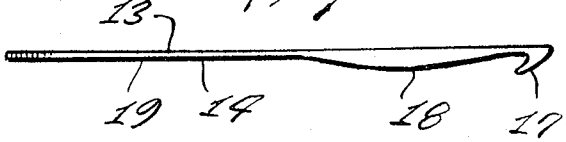
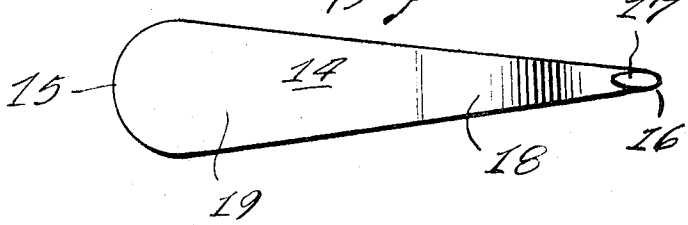


Fig. 4



INVENTOR
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SPIN DOWN

This invention relates generally to air-borne toys. More specifically it relates to spinning toys.

A principal object of the present invention is to provide a toy which after having been projected high in the air then begins to spin along a helix path during its descent toward the ground.

Another object is to provide a spin down toy which can be launched from a sling-shot type of launcher.

Yet another object is to provide a spin down toy which due to its wind milling rotation during earthward travel will remain aloft a relatively long time.

Yet another object is to provide a spin down toy which during upward travel from a launcher will remain in a constant plane so as to attain a maximum altitude without friction with the air.

Other objects are to provide a toy spin down which is simple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

These and other objects will be readily evident upon a study of the following specification and the accompanying drawings wherein:

FIG. **1** is a perspective view of the present invention shown in operative use,

FIG. **2** is a top plan view thereof,

FIG. **3** is a side elevation view thereof, and

FIG. **4** is a bottom view thereof.

Referring now to the drawing in detail, the reference numeral **10** represents a toy spin down according to the present invention, wherein there is a one piece member **11** made either of wood, aluminum or plastic.

The member **11** comprises a generally flat body having a tear drop shaped peripheral edge **12** which bounds a flat upper side **13** and substantially flat lower side **14**. The rear end **15** of the body edge is rounded, the opposite side edges being diagonally tapered toward a point at the front end **16**.

Upon the underside or lower side **14**, a rearward bent hook **17** is integrally formed at the front end **16**. Adjacent to the hook, the lower side has a longitudinally extending, arcuate, slightly downward bulge **18** which extends to approximately the longitudinal center of the body. Rearward of the bulge **18**, the lower side comprises a flat portion **19** which is parallel to the upper side **13**.

In operative use, the spin down is propelled upwardly into the air from a launcher **20** of sling shot type having a elastic band **21** over which the hook is placed; the spin down then being pulled back and released. The spin down can ascend to 400 feet altitude if properly designed. At its maximum it will level off and start to descend earthward. During descent due to the particular configuration, it will rotate along its front end so to form a spiral helix path during descent, which will delay its time in the air. As the spin down generally defines the descending helix path, its nose end **16** remains near the axis of the helix and the rear end remains away from the helix axis with the longitudinal axis of the member **11** being generally normal to the helix path. From an altitude of 400 feet, the spin down may remain airborne approximately 40 seconds.

While various changes may be made in the detail construction, it is understood that such changes will be within the spirit and scope of the present invention as is defined by the appended claims.

Having thus set forth and disclosed the nature of this invention, what is claimed is:

1. A spin down toy comprising a one piece member having a generally flat body of tear drop peripheral configuration, said body having a rounded rear end edge, opposite side edges tapering diagonally forward to a pointed edge at the forward end, said edges bounding a flat upper side and a substantially flat lower side, a nose end of said body having means for hooking over an elastic band of a launching device, and said body having means for effecting travel in a spiral helix path with said nose end of said body remaining near the axis of said helix during descent through the air.

2. The combination as set forth in claim **1** wherein said forward end has a rearwardly extending hook on said lower side, and a downwardly, arcuate bulge on said lower side adjacent said hook, said bulge extending to approximate longitudinal center of said lower side, and the rear remaining portion of said lower side being flat and parallel to said flat upper side.

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