March 2, 1971 H. A. WILSON 3,566,532

FLYING SAUCER TYPE TOY

Filed Nov. 8, 1967

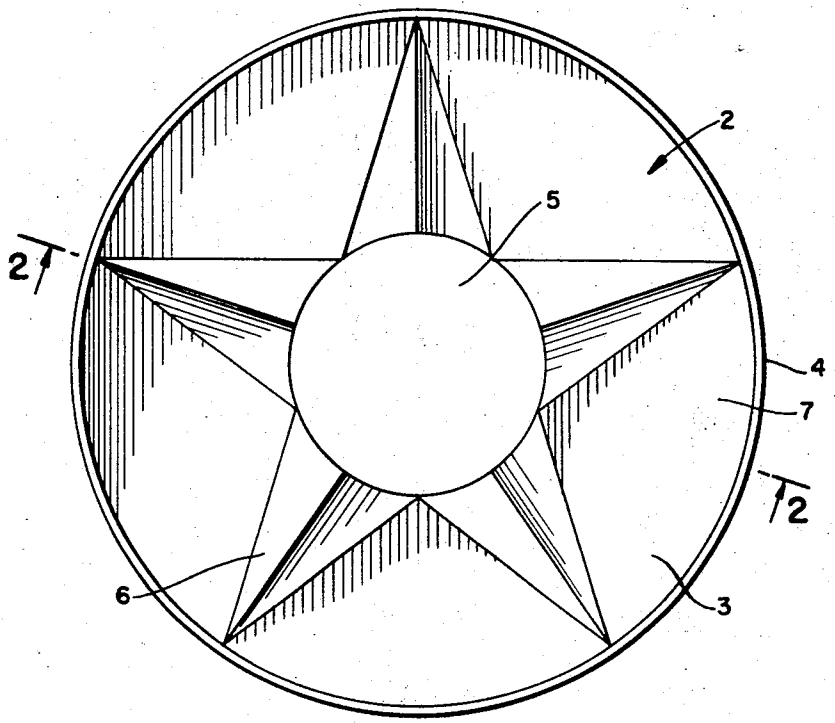


FIG. 1.

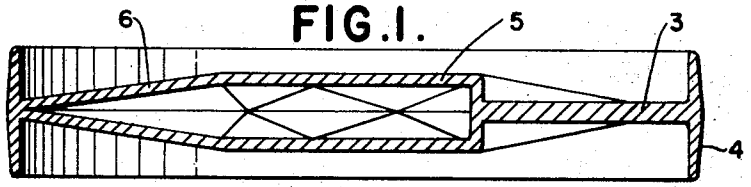


FIG. 2.

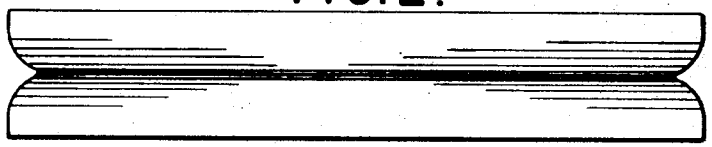


FIG. 3.

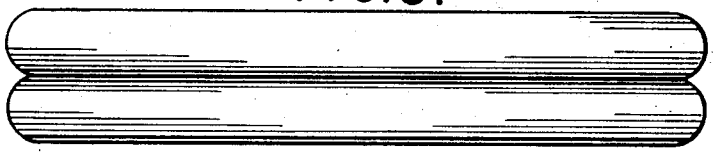


FIG. 4.

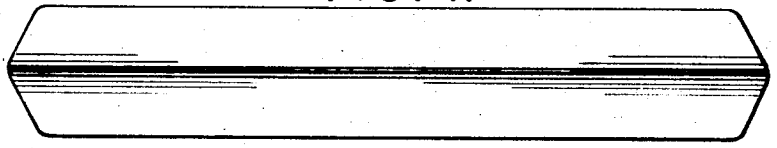


FIG. 5.

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FLYING SAUCER TYPE TOY

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ABSTRACT OF THE DISCLOSURE

A two sided flying saucer toy which is preferably made of a moldable synthetic plastic material, the toy being constructed with a relatively thin walled central hollow body portion from which hollow design forming wall portions radiate to the handle-like rim of the saucer. The web portions of the disc-like saucer intermediate the hollow radial design forming portions being functionally integral and relatively thickened to provide sufficient transverse strength to allow repeated use of the device with the light weight relatively large design forming wall portions. The handle rim is of cylindrical hoop-shape and extends in opposite directions from the central disc portion of the toy out and beyond the raised design carried thereon so as to protect the same when thrown and on alighting and to provide a hand gripping rim to permit an average child to obtain a good throwing grip from any peripheral point thereon to spin and hurl the disc in a straight line with improved throwing accuracy.

DISCLOSURE OF INVENTION

This invention therefore relates to an aerial projectile type toy and more particularly to a toy resembling the so-called flying saucer. This type of toy is intended to be thrown usually by a child and attempts to provide improved aerodynamic properties in such a device when so thrown by change in shape as described herein has resulted in improved accuracy and because of inherent lightness has reduced normal danger in use as well.

It is an object of this invention to produce a toy of this type that is shaped to provide improved handling and to eliminate usual dangers while imparting greater structural strength for its intended repeated use and fascination as a safe toy.

It is a further object of this invention to produce a throwing toy that can be sturdily gripped and thrown from any point on the periphery thereof by small hands.

It is also an object of the invention to provide a structure that has sufficient gyroscopic action to improve its twirling and straight sailing accuracy when thrown by a child.

These and other objects of the invention will be manifest on reading the accompanying specification in conjunction with the drawing wherein:

FIG. 1 is a plan view of the ornamental light weight flying saucer toy of this invention;

FIG. 2 is a section taken on the line 2—2 of FIG. 1;

FIG. 3 is a side elevation of a modified shape of the rim or handle portion of my invention;

FIG. 4 is a side elevation of another rim or handle shape of the invention; and

FIG. 5 is a side elevation of still another rim shape of the handle of this invention.

In accordance with this invention the saucer shaped toy is preferably made of a pressed or moldable synthetic plastic material and has an oppositely extending raised, hollow design hub portion 5 surrounded by a cylindrical hub with the rim. The hub is formed as an annular series of radiating strengthening vanes connecting a raised design so as to retain transverse stiffness consistent with the use of a thin

shell construction. The cylindrical rim is relatively wide to provide sufficient protection for the central oppositely raised hub and weight to produce a gyroscopic sealing action when rotated as it is thrown from the rim and is formed to present a minimum of sharp edges when caught. The width of the rim is of a dimension which will allow a child to obtain a good grip thereon.

In accordance with this invention the saucer-shaped toy 2 is preferably made of a pressed or moldable synthetic plastic material and has a disc-shaped web portion 3 surrounded by a cylindrical hoop-shaped rim or handle 4. The disc-shaped web portion is raised at its central portion on opposite sides thereof and to reduce weight this portion is made hollow. The spaced walls of which provide the hub 5 of a design that extends to the rim or handle 4 in the form of spaced, radial, hollow, tapering ribs or spokes 6 which extend to the center of the annular rim or handle 4. While the major area of the web portion 3 of the toy is formed hollow to reduce weight such spaced wall portions are utilized to provide a pleasing design and which functions to improve the aerodynamic properties of the toy in use. The remaining body portion of the web 3, i.e., the thickened flat portions 7 between the spaced hollow ribs 6 extend from the central raised hollow hub 5 to the outer cylindrical rim or handle 4, and serve to strengthen the toy for repeated use without damage to the thin spaced wall sections.

The hoop-like rim 4 extends laterally of the hub and is of greater height than the web design. This dimension provides a maximum weight of the material at the periphery which increases the gyroscopic action of the toy as it is thrown and thus improves the throwing accuracy. The height of the rim also provides a handle portion 4 which permits a child to apply a good grip in preparation for the throw. The rim illustrated in FIG. 2 is shown as only slightly tapered to eliminate as much as possible any sharp edges which are potentially dangerous to an intended receiver. While all corner sections are rounded it is possible to provide other shapes to the rim which have the required properties of strength and body protection as heretofore set forth.

In FIGS. 3, 4, and 5 are illustrated other shapes of rim which can be used in accordance with the teaching ot the invention. The hub structure of these forms of the invention is the same as that illustrated in FIGS. 1 and 2.

In FIG. 3 the rim 10 extends from the periphery of the disc 6 in the form of a reentrant curve which terminates in planes parallel to but above and below the plane of disc 6. In other words, the terminal edge portions of the rim are beyond the periphery of the disc so as to protect the same on landing.

In FIG. 4 the rim 12 is formed of a reentrant curve but the curvature is continued to terminate in planes parallel to and coextensive with the plane of disc 6.

FIG. 5 the taper of rim 14 is greater than that of rim 4 but the leading edge is bounded by a long smooth curve 16.

I claim:

1. A flying saucer toy comprising an imperforate disc having separated layers forming congruent raised designs on opposite faces to provide rigidity thereto and a rim comprising a cylindrical flange integral with the periphery of the rim and having a height greater than the height of the raised designs.

2. A device as defined in claim 1 wherein the rim extends in opposite directions beyond the plane of said disc and tapers from the peripheral edge thereof toward the plane of the disc.

3. A device as defined in claim 1 wherein the rim curves oppositely away from the plane of the disc and terminates in planes parallel to the plane of the disc and beyond the periphery of all portions of the disc.

4. A device as defined in claim 1 wherein the rim comprises in cross section a pair of connected oppositely extending curved flanges joined at the periphery of the disc and in planes parallel to and coextensive with the plane of the disc.

5. A flying saucer toy comprising a disc having an imperforate hollow raised body portion and a marginal rim handle integral with and extending laterally of the plane of said body portion.

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