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1,580,833

G. LIPARI

WHIRLIGIG

Filed Sept. 25, 1924

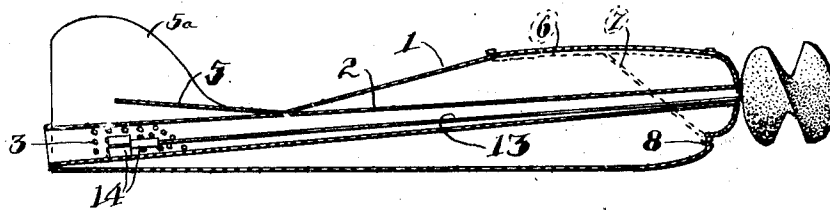
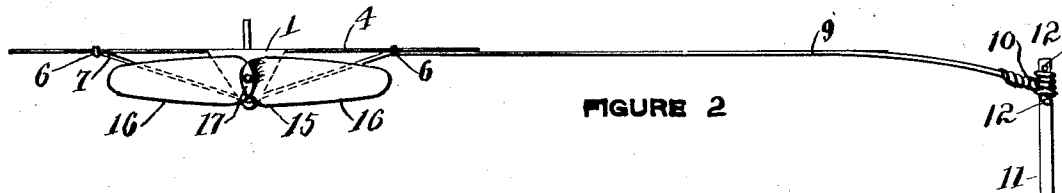
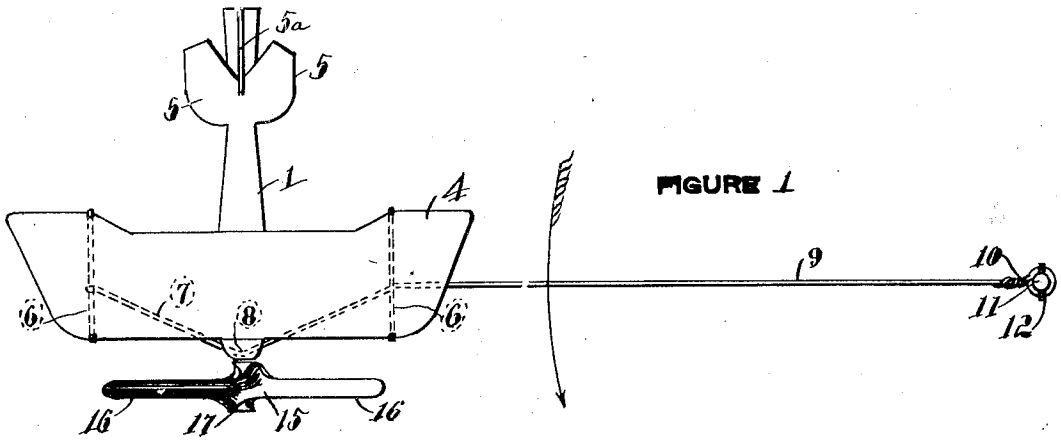


FIGURE 3

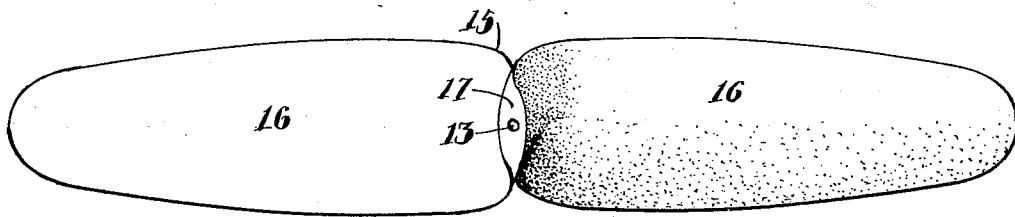


FIGURE 4

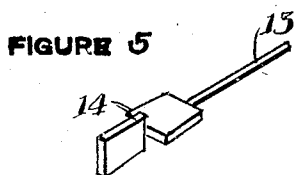


FIGURE 5

INVENTOR

Gaetano Lipari

BY *John A. Smith*

ATTORNEY

UNITED STATES PATENT OFFICE.

GAETANO LIPARI, OF SAN JOSE, CALIFORNIA.

WHIRLIGIG.

Application filed September 25, 1924. Serial No. 739,818.

To all whom it may concern:

Be it known that I, GAETANO LIPARI, a subject of the King of Italy, and a resident of San Jose, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Whirligigs, of which the following is a specification.

My invention relates particularly to a toy comprising a miniature aeroplane moored to and movable in a circle about a rod or handle.

It is one object of the invention to provide a device of the character indicated in which the revolution of the propeller occasioned by the rapid movement of the aeroplane through the air operates a noise making mechanism.

It is another object to provide a device of the character indicated in which the supporting body portion of the aeroplane functions also as a housing for the propeller shaft and cooperates with the shaft to produce a noise when the shaft is revolved.

In the drawing:—

Figure 1 is a plan view of the device.

Figure 2 is a front elevation of the same.

Figure 3 is an enlarged longitudinal vertical section through the device.

Figure 4 is an enlarged front elevation of the propeller.

Figure 5 is an enlarged perspective view of the noise making end of the propeller shaft.

Referring more particularly to the drawing, I show at 1 an aeroplane body formed in any suitable shape and of any suitable material, and rigidly supported by an open ended tube 2 passing longitudinally therethrough and elevated at its forward end as shown, the tube being funnel shaped in form and arranged with its larger end extended rearwardly. A certain portion of the interior surface of the tube is roughened by punching up bosses as shown at 3.

The body 1 is provided with wings or planes 4, tail planes 5 and a tail piece 5^a.

The planes 4 are braced by wires 6 extending transversely thereof, and a brace wire 7 extending from one wire 6 through a slot 8 formed in the nose of the aeroplane to the other wire 6 as shown, and thence laterally a distance beyond the aeroplane wing to form a support 9. This wire is resilient and is twisted to form terminal loops at 10 through which the end of a rod 11 is thrust.

The loops 10 are held in position on the end of rod 11 by pins 12 placed above and below them so as to permit the free rotation of the wire support 9 about rod 11. The size and shape of the wire support 9 and the degree of its curvature away from rod 11 are such that when it is completely assembled and the rod 11 held in a vertical position the wings 4 of the plane will lie in a substantially horizontal position.

At 13 I show a rod or propeller shaft having one end fitted with a pair of rectangular plates 14 arranged end to end and in planes intersecting each other at right angles.

The other end of the shaft 13 carries a propeller 15. This propeller comprises a pair of blades 16—16 symmetrically arranged about the shaft 13. The bases of the two blades are joined into one integral whole, the base of one curving around the central hub portion 17 and merging with the base portion of the other blade. The two blades are arranged at a suitable angle, and preferably taper toward their outer ends as shown. By this formation of the blades they are effective in their action on the air from the very center point to their tips and consequently their efficiency is exceptionally high.

With the body of the device constructed as described and properly mounted on rod 11, the long shaft 13 is inserted in the nose of the aeroplane through the open larger end of the tube 2, and of course is freely revoluble therein.

When the device is assembled as set forth, and the rod 11 held in a vertical position and given a gyrating movement, the aeroplane is caused to travel in a circle about the rod 11. In travelling in this manner the resistance of the air causes the propeller to revolve with more or less speed, and of course the shaft 13 revolves therewith. In revolving, the shaft 13 causes the rectangular plates 14 to strike the irregularly raised bosses 3 in tube 2, thereby creating a noise proportional to the speed of rotation of the shaft 13.

The plates 14 are somewhat smaller in size than the diameter of that portion of the tube 2 in which they operate so that they may be thrown freely about therein.

It is obvious, of course, that while I have herein shown and described one specific embodiment of my invention, changes may be

made in form, proportions, construction and method of operation, within the scope of the appended claims.

I claim:

- 5 1. A toy comprising an aeroplane body having laterally extending wings, a supporting element extending from a point adjacent the extremity of one wing diagonally to the nose of said body, thence diagonally to a point adjacent the extremity of the other wing, and thence laterally of the aeroplane body a distance and provided with means for revolvably mounting the element on a vertical support.
- 15 2. A toy comprising an aeroplane body having an open ended tube extending lengthwise therethrough, a rod loosely insertable and freely revoluble in said tube, and a propeller carried by said rod, said rod carrying a rattle on the portion within said tube.
- 20 3. A toy comprising an aeroplane body having a tube extending therethrough, a rod loosely insertable and freely revoluble in said tube, a propeller mounted on said rod, and noise making mechanism inserted between said rod and tube, a part of said mechanism being carried by said tube.
- 25 4. A toy comprising an aeroplane body, a tube extending lengthwise therethrough, a rod loosely insertable in said tube, and a propeller mounted on said rod, said tube having a roughened interior and said rod carrying elements engageable with said roughened interior to make a noise when revolved by the rotation of said propeller.
- 35 5. A toy comprising an aeroplane body, a tube extending lengthwise therethrough and tapering toward its forward end, a propeller operated rod loosely insertable in said tube and freely revoluble therein, and a propeller mounted on said rod, said rod carrying laterally projecting parts on the end opposite to said propeller and within the larger portion of the tapered tube.
- 40 6. A toy comprising an aeroplane body, a tube extending lengthwise therethrough and inclined downwardly from the nose to the tail portion thereof and tapering toward its forward end, a propeller operated rod loosely insertable in said tube and freely revoluble therein, and a propeller mounted on said rod, said rod carrying laterally projecting parts on the end opposite to said propeller and within the larger portion of the tapered tube.
- 45 7. A toy comprising an aeroplane body having a tube inserted in its forward end, a rod loosely inserted in said tube and freely revoluble therein, a propeller carried by said rod, and noise making mechanism inserted between said rod and tube.
- 50 55 60

GAETANO LIPARI.