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(54) **TOY AIRCRAFT**

(57) **Abstract:**

(54) **AVION-JOUET**

*This First Page has been artificially created and is not part of the CIPO Official Publication*

This invention relates to improvements in toy aircraft, and consists essentially of a circular flight body including novel means of engagement with a catapulting device, and automatic flight guide and stabilizing means.

The principal object of the invention is to provide a toy patterned according to the popular conception of the fanciful aircraft commonly termed a "flying saucer".

Another important object is to provide a flight body which may be caused to gyrate in order to afford it flight  
10 stability.

Another important object is to provide a body of the kind specified which will soar in a substantially direct course.

Another important object is to provide a device of the character described which will be simple and inexpensive to produce and to purchase.

These together with other objects which may later appear may be attained by the structure which will be hereinafter more particularly described, specifically claimed, and  
20 illustrated in the accompanying drawings.

Referring now to the drawing:-

Figure 1 is a perspective view of a flying toy as constructed in accordance with the present invention, showing also the method by which it is caused to soar and to spin while in flight;

Figure 2 is an elevation;

Figure 3 is a top (or bottom ) view;

Figure 4 is an elevation of a modified form of the invention; and

30 Figure 5 is a top view of Figure 4.

Similar reference characters refer to like parts throughout the several views.

In its present embodiment the invention consists of the circular body 10 which is shaped substantially according to a pair of identical saucer-like portions placed coaxially and co-peripherally rim to rim, the two portions together forming a solid or unit.

Preferably the body is hollow, as here shown, and may be constructed of light material such as paper-board or thin 10 plastic. As an alternative, however, the body may consist of light solid material such as balsawood (not shown).

For convenience in production the saucer-like portions may be conical, as here shown, the conical portions being squat, that is, of easy taper, so that the distance between their respective apices is appreciably less than the radius of the body. Moreover these complementary saucer-like portions, if desired, may be frustro-conical, or convex (not shown) and still be effective.

In any event the circular body structure is such that 20 it slopes or tapers upwardly and downwardly, respectively, from the termini of its axis whereby to provide on the peripheral portion of the body an annular air-splitting edge 12.

A loose spindle 13 is journalled axially in the body 10, preferably in a fixed bushing 14, and the protruding end portions of the spindle carry vanes or blades 15. The vanes may be mounted on arms 16 in turn attached to the spindle substantially at right-angles. The vanes are flat, roughly fantailed, and lie in a common vertical plane. The body, 30 with the bushing 14, is obviously free to revolve about the

spindle 13, which, with the vanes 15 remains free from rotation as the craft spins in flight.

Conveniently the spindle 13 and the arms 16 may be formed as one from a piece of light wire bent U-shaped after being fitted into the bushing 14. The vanes may consist of stiffened paper-board, (and the bushing may consist conveniently of a proper length of the tubular insulation known to the electrical trade as "spaghetti". The bushing should protrude beyond the body as bossés 14a in order to keep the inner  
10 edges of the vanes free of the body.

All the foregoing portions of the craft which are secured to another in fixed relation that is, the saucer-like portions to each other, the bushing to the flight body, and the vanes to the arms, may be conveniently so fixed by the use of the adhesive commonly known by the trade-name, aeroplane glue.

At any random point about the periphery of the body is an inset spur or hook 17 formed by a saw-tooth notch 18.

Flight impetus to the body is induced by a catapulting  
20 device which conveniently may be in the form of a common stationer's elastic band E (see Figure 1). This impellent, or any other suitable elastic device must instantly start the flight body spinning, whereupon it takes off and soars aloft until its momentum is fully spent.

During flight the vanes 15 trail and thus maintain the body in a more or less steady course, the path only varying from straight as the body may be influenced by air currents. The gyration of the body keeps it from plunging, stabilization, however, being augmented by the trailing vanes.

To start the body spinning, and thence in flight, it is turned to a position locating the spur 17 well to the left, that is in such position as will point the spur away from the operator. The operator preferably grasps the rim of the body with thumb and forefinger of the left hand at the distant side of the prong, while with the right thumb and forefinger he loops or hooks the band E about the prong, stretches the band as he would the elastic of a catapult, and finally releases the body to the pull of the band.

10 In its modified form shown in Figures 4 and 5 the flight body consists merely of a substantially flat-faced disc 100 having an inset spur 117 formed by a saw-tooth notch 118 in the peripheral portion thereof. At least two identical elevator blades 119 extend from the low face of the disc, each said blade being formed by cutting all but one side of a multi-sided figure through the material of the disc and bending the cut portion along its uncut side so that it lies at an angle to the face of the disc.

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

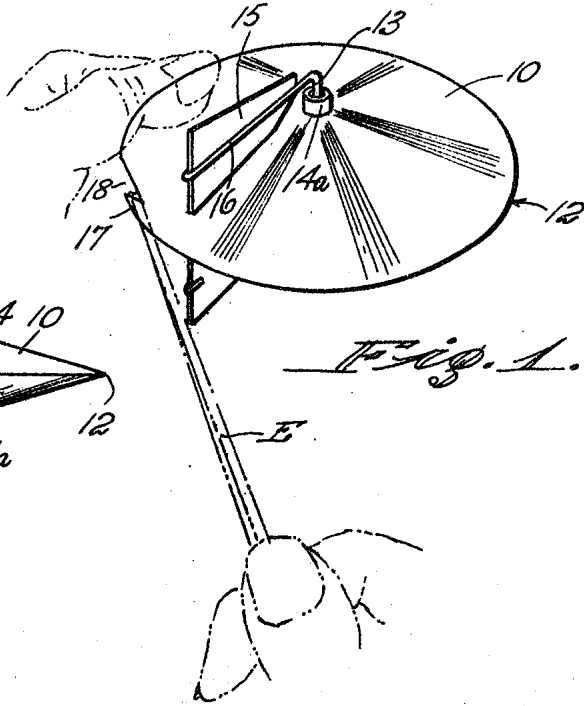
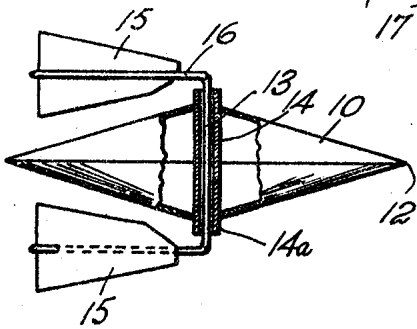
1. A toy aircraft comprising a circular flight body shaped substantially according to a pair of identical saucer-like portions placed coaxially and co-peripherally rim to rim and together forming a solid, a loose spindle journalled coaxially in said body and having opposed end portions outside said body, a pair of trailing vanes in fixed association with the spindle and arranged one at each said opposed portion thereof, and a connection device associated with the peripheral portion of the body.

2. The structure according to Claim 1 in which the connection device consists of a spur formed by a saw-tooth notch in the peripheral portion of the body.

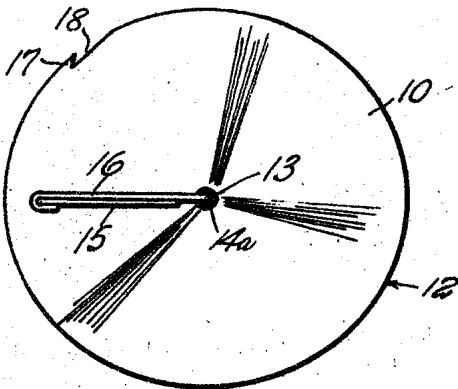
3. The structure according to Claim 1 in which the spindle is journalled in a bushing, the ends of the bushing forming opposed bosses externally of the body.

4. A toy aircraft comprising a circular flight body shaped substantially according to a pair of identical saucer-like portions placed coaxially and co-peripherally rim to rim and together forming a solid, a pair of vanes arranged one above and one beneath said body and to freely trail from a device associated with the axis of said body, and a connection device associated with the peripheral portion of the body.

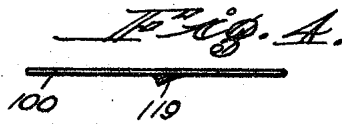
*Fig. 2.*



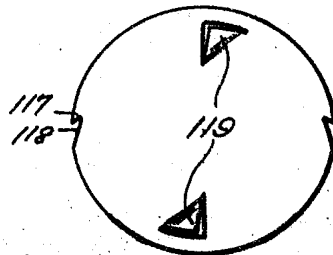
*Fig. 1.*



*Fig. 3.*



*Fig. 4.*



*Fig. 5.*

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