March 12, 1957 E. K. JACKLE 2,784,524

TOY GLIDERS

Filed May 26, 1955

Fig. 1.

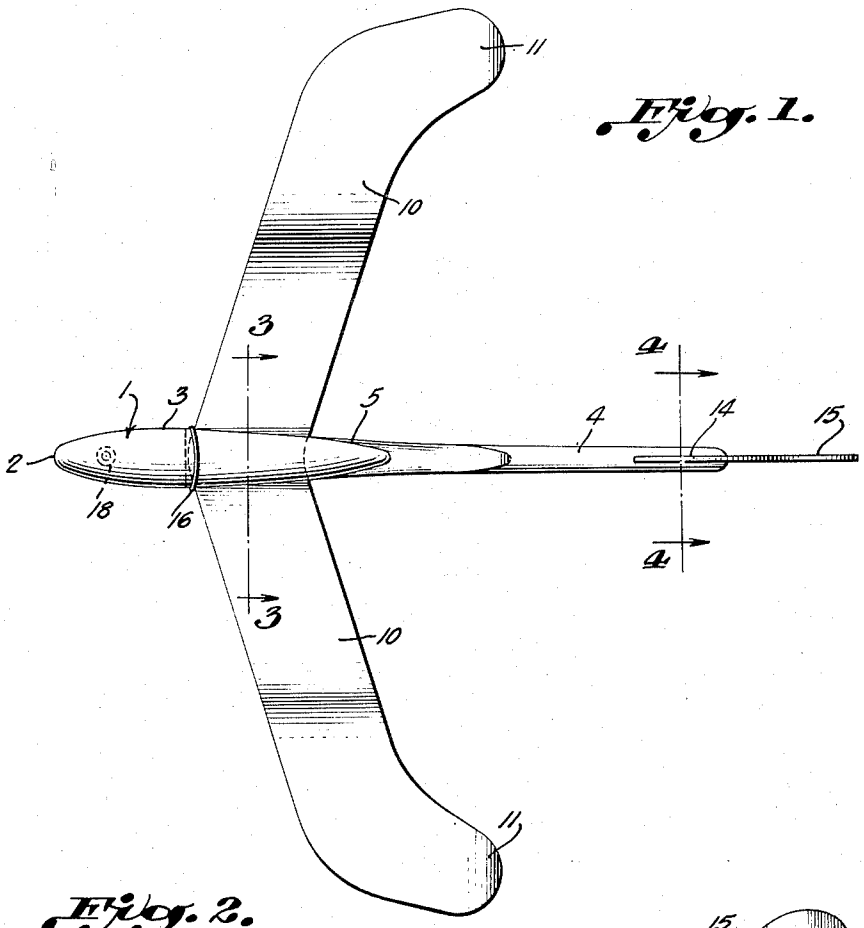


Fig. 2.

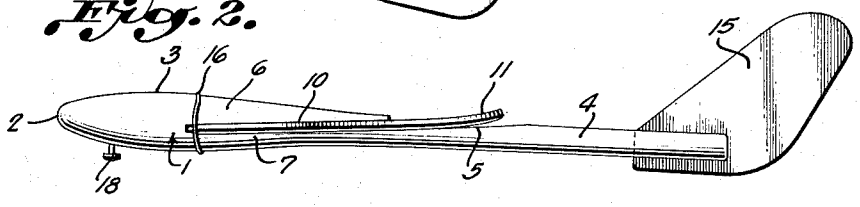


Fig. 3.

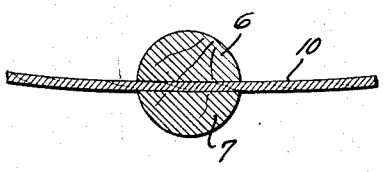
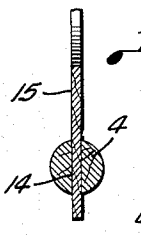


Fig. 4.



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TOY GLIDERS

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2 Claims. (Cl. 46—81)

This invention relates to toy aeroplanes and more particularly to toy aeroplanes of the glider type.

It is the object of the present invention to provide a toy aeroplane which is rugged and economical in construction and adapted for the entertainment of small children, which toy simulates the flight of aerial gliders which are so fascinating to the younger generation.

It is a further object of the present invention to provide a light toy which because of its lightness and simplicity is not subject to damage, nor can it do any damage when the same strikes against furniture and indoor furnishings and belongings. Furthermore, the toy may be easily collapsed and extended so that it may be carried conveniently in a pocket or other confined space and may be quickly adjusted for use.

The instant invention presents an improvement over the toy glider disclosed in my Patent No. 2,538,522, January 16, 1951, by reducing the number of component parts and simplifying the construction of the unit. The essential parts of the toy glider have been reduced to three in number and the interconnection between them is attained by frictionally interfitting the parts in suitably dimensioned slots.

Other objects and purposes will appear from the detailed description of the invention following hereinafter, taken in conjunction with the accompanying drawing, wherein

Fig. 1 is a plan view of the toy in accordance with the present invention;

Fig. 2 is a side elevation of Fig. 1;

Fig. 3 is a vertical sectional view along line 3—3 of Fig. 1; and

Fig. 4 is a vertical sectional view along line 4—4 of Fig. 1.

The toy glider in accordance with the present invention as shown in the drawing is composed of three principal parts which are capable of easy assembly and dismantling. The component parts of the glider may be formed of light material such as wood, Celluloid, plastics, etc.

The three principal parts of the glider consist of a fuselage **1**, a unitary pair of wings **10** and a rudder **15**. The fuselage **1** is formed as a cigar-shaped surface of revolution having a rounded nose **2** at its forward end and a cylindrically-shaped body **4** at its rear portion beyond its longitudinal center. The fuselage body has its greatest diameter at point **3**, between the longitudinal center of the body and the rounded forward nose and in closer proximity to the latter.

A slot **5** is cut in the fuselage body along a substantially horizontal plane from substantially the mid-portion of the fuselage towards the nose and terminates near the greatest diameter **3** thereof and preferably a small distance behind this part of the fuselage. The slot **5** is directed towards a point below the rounded nose to divide the fore-part of the fuselage into a thicker upper part **6** relative to the lower part **7** which merges into the rear

cylindrical portion **4** of the fuselage. The slot is of such a thickness that it receives the unitary pair of wings **10** between the portions **6** and **7** of the fuselage and retains it with a frictional fit. The slot **5** is formed preferably with a slight upward concavity relative to the longitudinal axis of the fuselage which imparts a corresponding concavity to the unitary pair of wings **10**, as may be seen in Fig. 3. The transverse curvature of the slot also enhances the tightness of the frictional retention of the wings **10** therein. The back-swept terminal portions **11** of the wings **10** produce desirable flight effects in the toy, particularly when these terminal portions are flexed or bent slightly in an upward direction, as shown in Fig. 2. These flight effects also may be modified by tilting the unitary pair of wings relatively to its medial support afforded by the fuselage **1** with the slot **5** therein. The rear cylindrical portion **4** of the fuselage is provided with a vertical slot **14** in order to accommodate a rudder **15**, which may be frictionally fitted within the slot at varying inclinations in order to obtain further different flight effects.

A rubber band **16** may surround the fuselage **1** directly in front of the unitary pair of wings **10** which serves to cushion the shocks experienced by such wings when the nose of the glider strikes against the ground or other object.

A pin **18** may be inserted in the bottom surface of the fuselage behind the rounded nose **2** to serve as a retainer for a launching device which may be used in catapulting the toy glider in space. The glider is also adapted to be thrown in a manner similarly to a dart or other projectile.

The structural arrangement in acordance with the invention presents a simplification of that disclosed in my earlier patent, which results in increasing the ruggedness of the toy, as well as in reducing the cost of manufacture thereof, and without diminishing the entertaining and educational features of the toy.

While I have described my invention as embodied in a specific form and as operating in a specific manner for purposes of illustration, it should be understood that I do not limit my invention thereto, since various modifications will suggest themselves to those skilled in the art without departing from the spirit of my invention, the scope of which is set forth in the annexed claims.

I claim:

1. A toy glider comprising a unitary fuselage in the form of a cigar-shaped surface of revolution, having its greatest diameter forward of its longitudinal center with a rounded nose at the forward end thereof and the portion thereof behind said longitudinal center being of relatively reduced cylindrical outline, said fuselage having a slot in a substantially horizontal plane extending from substantially the mid-portion of said fuselage towards said nose, terminating near the greatest diameter thereof, and pointing from the rear towards a point slightly below the rounded nose to divide said fuselage into a thicker upper part and a thiner lower part of greater length than the upper part, a unitary pair of wings having rearwardly extending terminal portions frictionally retained within said slot between the upper and lower parts thereof and projecting symmetrically from the opposite sides of said fuselage, said aforementioned slot being formed with a slight upward concavity to impart a smoothly curved corresponding concavity to the pair of wings frictionally retained within said slot, the rearmost end of the cylindrical portion of the fuselage having a vertical slot therein, and a rudder frictionally retained within said vertical slot.

2. A toy glider as set forth in claim 1, wherein the rear-

wardly extending terminal portions of the wings are flexed slightly in an upward direction.

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