Oct. 13, 1942. G. W. SHAFFER 2,298,425

TOY GLIDER

Filed Sept. 8, 1941

Fig. 1.

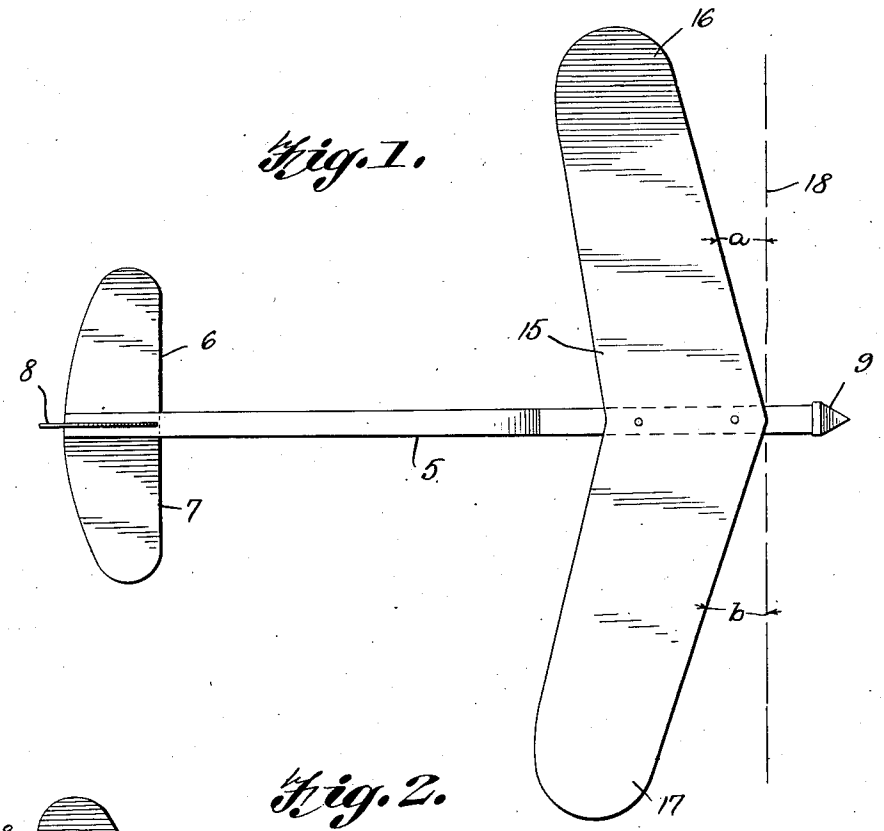


Fig. 2.

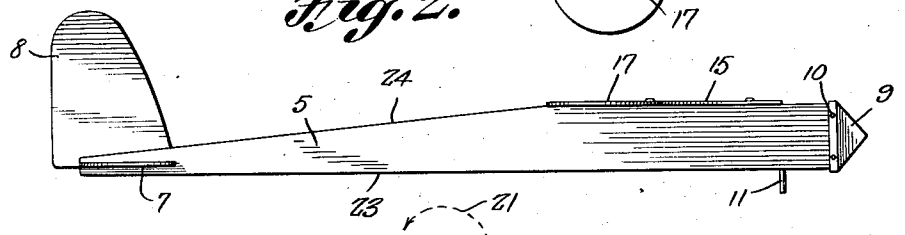
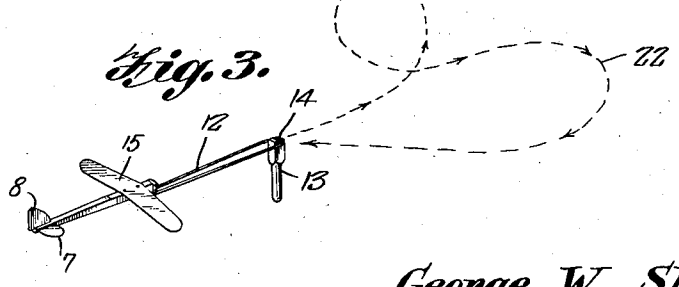


Fig. 3.



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TOY GLIDER

George W. Shaffer, New York, N. Y.

Application September 8, 1941, Serial No. 410,096

1 Claim. (Cl. 46—81)

The present invention relates to improvements in toy gliders and has for its primary object the provision of such a toy which is to be forcibly ejected into the air and upon decrease of the momentum imparted thereto as a result of the forcible ejection, will return to substantially its starting place.

Another object of the invention resides in the provision of a toy glider, the construction of which will cause the glider, when forcibly ejected into the air, to make a complete loop before circling back to its starting place.

A further object of the invention is to provide an improved glider, which is simple in construction, relatively inexpensive to manufacture and highly efficient in use.

The invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a top plan view of a toy glider as constructed in accordance with the present invention.

Figure 2 is a side elevational view thereof.

Figure 3 is a view illustrating the performance of the glider.

The form of the invention illustrated in the accompanying drawing includes a fuselage **5** formed of an elongated strip of relatively light weight material. Suitably secured in one end of the fuselage are a pair of horizontally disposed stabilizing fins **6** and **7** and a vertical fin or rudder **8**, the stabilizers and rudder being preferably adhesively secured in vertical and longitudinal slots formed in the tail portion of the fuselage. The front end of the fuselage has attached thereto a tapered block **9** attached by nails or the like as indicated at **10** which forms a nose piece for the glider.

As is to be understood, the glider is to be forcibly ejected into the air and for accomplishing this purpose there is provided on the lower face of the fuselage adjacent the front end thereof a pin **11** which receives a looped rubber band **12**. A stick **13** having a slot **14** formed therein supports the rubber band and by holding the stick in one hand then pulling rearwardly on the fuselage with the other hand, the rubber band will be drawn taut and when the glider is released it will be projected into the air for an appreciable distance, the rubber band being released from the pin as the glider is projected. It is, of course, to be understood that any other desired means may be employed for projecting the glider into the air.

Fixedly secured to the fuselage **5** near its forward end for disposal an equal distance upon opposite sides thereof is a substantially V-shaped wing **15** having its angle portions extending rearwardly, and in accordance with the present invention the angle portions are arranged with respect to each other, so that the angularity of the portion **16** is less than that of the portion **17**. Drawing an imaginary line **18** from the forwardmost point of the wing **15**, as shown in Figure 1, it will be observed that the angle indicated by the letter *a*, between that line and the portion **16**, is less than the angle indicated by the letter *b*, between the line **18** and the portion **17**. This variance in the angularity of the wing portions causes the right side of the glider to dip during flight. Referring to Figure 3 of the drawing, it will be observed that as the glider is projected it will travel upwardly making a complete loop **21** after which it will travel in the direction of the arrows **22** with the right side of the glider dipped to bring the glider around in a partial circle so as to return to its approximate starting point. It is, of course, to be understood that the various parts of the glider are formed of a relatively light weight material arranged so as to give proper balance. The block **9** adds sufficient weight to the front of the glider for proper balance so that it will make a smooth gliding landing with little possibility of a nose dive.

It is preferred that the fuselage be of the shape best illustrated in Figure 2 of the drawing which includes a flat bottom surface **23** and a tapered top surface **24**, the tapering surface beginning adjacent to the rear edge of the wing **15**, as shown in Figure 1.

Also it will be understood, of course, by those skilled in the art that variations in the hereinabove described device involving the substitution of substantial equivalents for the devices described are intended to be comprehended within the spirit of the present invention and that the invention is capable of extended application and is not confined to the exact showing of the drawing nor to the precise construction described and, therefore, such changes and modifications may be made therein as do not affect the spirit of the invention nor exceed the scope thereof as expressed in the appended claim.

What is claimed is:

A toy glider adapted to be forcibly ejected into the air, comprising an elongated fuselage, a rudder and a stabilizer secured to the rear end portion of the fuselage, a substantially V-shaped wing fixed along its transverse center to the front end portion of the fuselage and with its angle portions extending rearwardly an equal distance upon opposite sides of the fuselage, and one angle portion being arranged at an angle greater than that of the other angle portion for effecting a dip of the glider to bring about a looping movement thereof in flight and the return of the glider substantially to its starting point.

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