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S. C. WILSON

FLYING TOY

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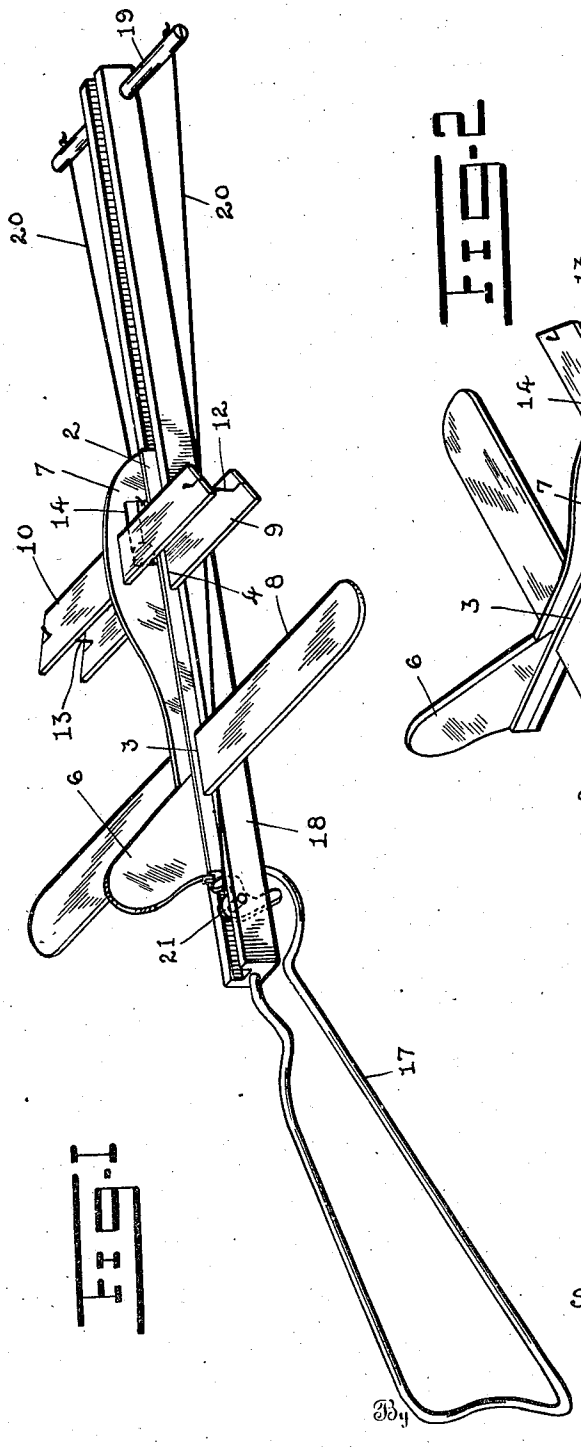

FIG. 1

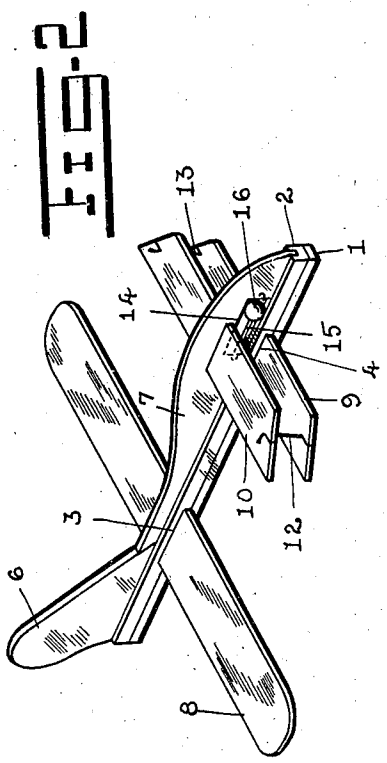

FIG. 2

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FLYING TOY.

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The object of this invention is to provide an improved flying toy, means for propelling it and means for automatically regulating its flight.

These and other objects of this invention will be fully illustrated in the drawing, described in the specification and pointed out in the claim at the end thereof.

In the accompanying drawing:

Figure 1 is a perspective view of the flying toy and the cross bow with which it is launched and propelled into the air.

Figure 2 is a detail perspective view of the flying toy.

In the figures of the drawing like reference numerals indicate like parts.

The subject matter of my present invention consists of a flying toy resembling a miniature flying machine or glider having a certain control member which automatically operates to change the direction of flight simulating what may be termed stuntflying.

As illustrated in the figures the flying toy consists of a miniature glider having a longitudinal fuselage built up of the bottom member 1 and the top member 2 that are suitably fastened together one above the other. In the under side of the top member of the fuselage are provided the notches 3 and 4 which are transformed into two elongated slots after the bottom member has been attached to the top member to complete the fuselage of the glider.

In the top of the fuselage is provided the longitudinal channel 5 into which are suitably fastened the tail member 6 and the body member 7. The glider is a combination monoplane and bi-plane having a large wing member 8 near the rear of the fuselage and a pair of smaller wing members 9 and 10 near the front end thereof. The large rear wing member is held in place in the slot 3 provided in the fuselage and the lower of the pair of smaller front wing members 9 is held in place in the slot 4 of the fuselage. The upper front wing member 10 is held in place in a similar slot 11 provided in the body member 7 and the outer ends of both of the front wing members are fastened together by the rubber bands 12 and 13 in order to hold the pair of front wings parallel to each other and to the rear wing member 8.

In the body member 7 and partly between the pair of front wing members 9 and 10 is provided the slot 14 between the ends of which is stretched and suitably supported the wire guide rod 15. On this guide rod or wire 15 is mounted to slide back and forth the ball or weight 16 which according to its position on the guide rod determines the flight of the glider.

The glider so far described is adapted to be launched and propelled into the air by means of a cross bow. This cross bow comprises a stock made up of the wire frame 17 and the channel member 18 to which the wire frame is suitably fastened. Near the forward end of the channel member is provided the cross bar 19 to the outer ends of which are attached the ends of an elastic 20. A trigger 21 is suitably pivoted near the rear end of the channel member 18 and the elastic 20 is adapted to be stretched until it engages the trigger 21 so as to be held stretched over the channel member until released by the trigger.

The glider fuselage is adapted to engage into the channel of the channel member 18 to freely slide therein, and is placed into it at a point just ahead of the trigger 21 and the stretched elastic as illustrated in Figure 1. When the trigger is rocked by the finger and the elastic released by it, the elastic in contracting will force the fuselage of the glider thru the channel at a high rate of speed and shoot the glider into the air after leaving the channel member. The channel in the channel member serves to guide the glider during its initial movement so that it can be shot in a predetermined direction or elevation.

The force with which the glider is propelled locates the ball or weight 16 at the rear end of the guide rod 15 and properly balances the glider during its initial flight. After the glider has spent some of its momentum in flight the forward portion of it which is heavier than the rear portion begins to tilt downwardly and allows the ball or weight 16 to slide forward on the guide rod 15. This movement of the ball further overbalances the front of the glider and starts the glider to tilt sharply which action of the glider together with the proper curvature starts the glider into "a loop the loop" or "tail spin" depending on how the glider was shot into the air in the first place. As the glider loops or spins the action of the ball or weight in sliding back and forth

on the guide rod again comes into play changing the flight of the glider several times until it finally settles to the ground.

The channel and slots in the fuselage and body member are provided so that different colored tail, wing and body members may be attached to the fuselage and body member, to change the appearance of the glider as desired. If desired the top one of the pair of front wings may also be omitted.

I claim:

A flying toy having a fuselage comprising a longitudinal member having a pair of slots therein, a channel in the top of said fuselage, a tail engaging into said channel at the rear of said fuselage and a body member engaging into said channel near the front of said fuselage, said body having a slot near the front thereof, a guide rod supported in said body member, a weight mounted to slide on said guide rod, a large wing member supported in the slot at the rear of said fuselage and a small wing member mounted in the slot near the front of said fuselage, a second small wing member mounted in said body member above said first small wing member and yielding connecting members on the outer ends of said short wing members to hold said short wing members parallel with each other.

In testimony whereof I affix my signature.

SIDNEY C. WILSON.