Oct. 16, 1923. 1,470,934

H. R. ROSS

TOY AIRPLANE

Filed Feb. 4, 1922

Fig. 1.

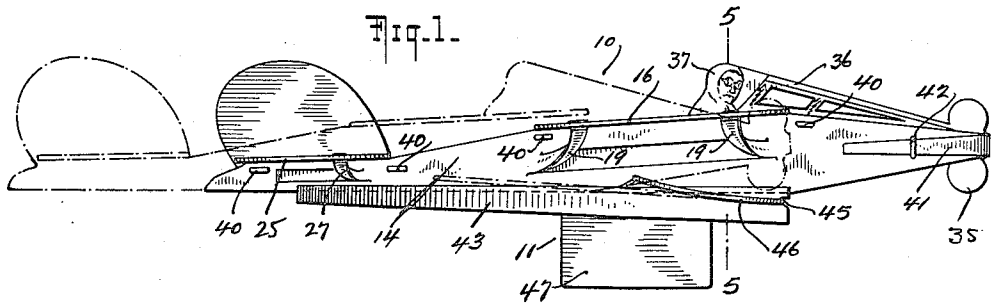


Fig. 2.

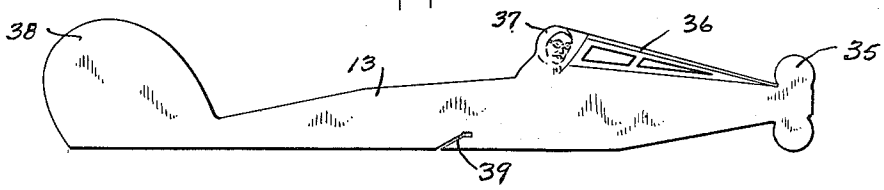


Fig. 3.

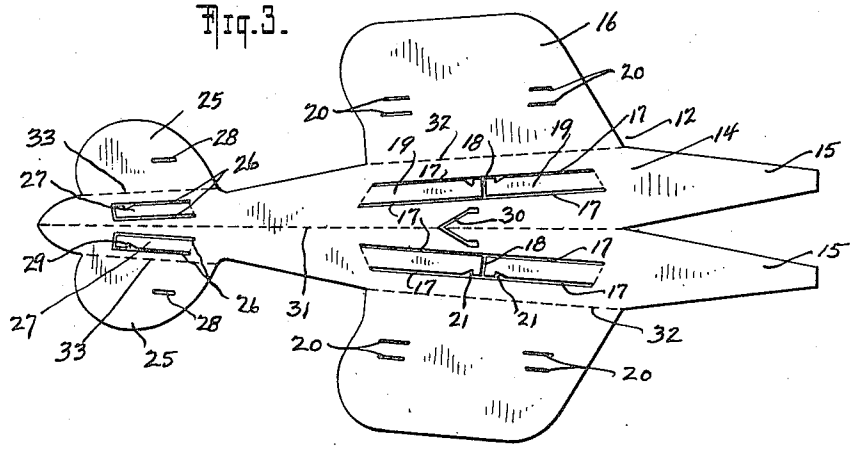


Fig. 4.

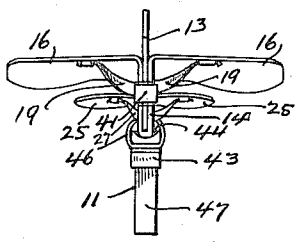
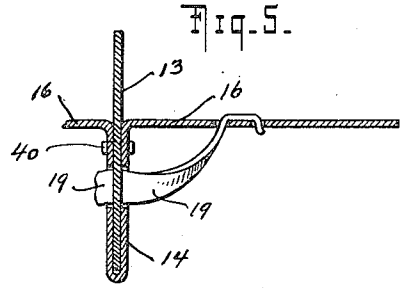


Fig. 5.



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UNITED STATES PATENT OFFICE.

HOLLIS R. ROSS, OF BUFFALO, NEW YORK.

TOY AIRPLANE.

Application filed February 4, 1922. Serial No. 534,143.

To all whom it may concern:

Be it known that I, HOLLIS R. ROSS, a citizen of the United States of America, residing in the city of Buffalo, county of Erie, and State of New York, have invented certain new and useful Improvements in Toy Airplanes, of which the following is a full, clear, and exact description.

My invention relates generally to toys, and more particularly to the production of a toy airplane which may be shot through the air.

The principal object of my invention has been to provide an airplane which may be conveniently and inexpensively manufactured from cardboard.

Another object has been to provide a device of this nature which shall be so reinforced as to make it very durable in use.

Furthermore, my device is very simple to operate and may be so projected into the air that it will take the desired course.

The above objects and advantages have been accomplished by the device shown in the accompanying drawings, of which:

Fig. 1 is a side elevation of my complete device.

Fig. 2 is a side elevation of one of the parts of the airplane.

Fig. 3 is a plan view of another part of the airplane as it appears before being folded.

Fig. 4 is a front elevation of my device.

Fig. 5 is an enlarged, fragmenetary, sectional elevation taken on line 5—5 of Fig. 1.

In the drawings, 10 represents the airplane and 11 the projecting device or gun therefor. The airplane comprises a fuselage 12 and a central member 13.

The fuselage 12, as shown developed in Fig. 3 comprises a central body portion 14 having forwardly extending ends 15. At each side of the body portion 14 is provided a plane 16. The body portion is provided at each side of the central line with slits 17 and 18, whereby a plurality of plane supporting tabs 19 are provided. The planes 16 are each provided with two pairs of slits 20 for the reception of the plane supporting tabs 19. Each of these tabs 19 is provided near its outer end with a notch 21 which is designed to engage with the plane 16 when the tabs are in their assembled positions, as shown in Fig. 5.

The body part 14 of the fuselage is also provided at its tail portion with two elevators 25. This part of the body is provided with a plurality of slits 26, whereby two elevator supporting tabs 27 are formed, one arranged at each side of the center. Each elevator is provided with a slit 28, with which the outer ends of the elevator supporting tabs 27 are engageable. Each of these tabs is provided with a notch 29 for engagement with the elevator, whereby the tab will be retained in position.

The body part 14 is also provided with a V-shaped slit 30, which, when the fuselage is folded will provide means for the reception of the projecting device.

When my airplane is being formed the fuselage 12 shown in Fig. 3 is folded upwardly along the centrally arranged dotted line 31. The planes 16 are then folded outwardly along the dotted lines 32. The elevators 25 are also folded outwardly along the dotted lines 33. The plane supporting tabs 19 are then engaged with the adjacent pair of slits 20 in the planes, and the planes are thus held at the proper angle. Likewise, the outer ends of the elevator supporting tabs 27 are engaged with the slits 28, whereby the elevators are held in their proper potitions.

The central member 13 is provided at its forward end with the representation 35 of a propeller, also a representation 36 of the engine cowl, and the representation 37 of the aviator. At the rear end of this member is formed the rudder 38 of the airplane. An angularly arranged slit 39 is cut in the lower edge of this central member, which will register with the slit 30 of the fuselage.

The central member 13 is placed within the folded fuselage 12, and preferably secured there by means of fasteners 40 of any suitable kind. A metallic reinforcing member 41 is provided at the nose end of the airplane, whereby it will stiffen the airplane and prevent its forward end from becoming bent upon impact with other objects. This reinforcing member is preferably bent upon itself, whereby a portion of it is disposed on each side of the airplane. A fastener 42 serves to secure the reinforcing member and the parts of the airplane in position.

The projecting device 11 comprises a horizontal member 43 having a groove 44 cut in its upper surface. The lower edge of the airplane is designed to engage this groove and to be directed by it as it is being pro-

jected from the device. A notch 45 is provided in the forward end of the horizontal member 43 for the reception of the forward loop of an elastic band 46. The rearward loop of the band 46 is permanently engaged with the registering slits 30 and 39 of the fuselage and central member of the airplane. A suitable handle 47 is provided for the horizontal member 43, whereby it may be conveniently held in the hand while the airplane is being projected into the air.

When the toy is to be used, the airplane is placed upon the horizontal member 43 of the projecting device 11 and the forward loop of the elastic band 46 is placed in engagement with the notch 45. The handle 47 is then grasped in one hand and the tail of the airplane between the fingers of the other hand. The airplane is drawn backwardly to substantially the broken line position of Fig. 1, whereupon the elastic band 46 will be placed under tension. It will be clear that when the airplane is let go, the elastic band will draw it forwardly along the groove 44 and project it into the air with considerable force.

Obviously, some modifications of the details herein shown and described may be made without departing from the spirit of my invention or the scope of the appended claims; and, I do not, therefore, wish to be limited to the exact embodiment herein shown and described.

Having thus described my invention, what I claim is:

1. A toy airplane comprising a fuselage and a central member, the fuselage being made of a single piece of material, folded upon itself and formed with planes and integral supporting tabs for the planes.

2. A toy airplane comprising a fuselage made of a single piece of material, folded upon itself and formed with planes, and a central member formed with a rudder.

3. A toy airplane comprising a fuselage made of a single piece of material, folded upon itself and formed with planes, a central member formed with a rudder, and means for fastening the fuselage and the central member together.

4. A toy airplane comprising a fuselage made of a single piece of material, folded upon itself and formed with planes, and a central member, extending substantially the entire length of the fuselage and formed with a rudder.

5. A toy airplane comprising a fuselage made of a single piece of material, folded upon itself and formed with planes, elevators, and integral tabs for supporting the planes and the elevators.

6. A toy airplane comprising a fuselage made of a single piece of material, folded upon itself and formed with planes, elevators, and integral tabs for supporting the planes and elevators, and a central member formed with a rudder.

7. A toy airplane comprising a fuselage made of a single piece of material, folded upon itself and formed with planes, a central member formed with a rudder, and a reinforcing member secured to the nose of the airplane.

In testimony whereof I have hereunto signed my name.

HOLLIS R. ROSS.