A. E. WERNER.

TOY AEROPLANE.

APPLICATION FILED AUG. 14, 1919.

1,341,624. **Patented May 25, 1920.**

Fig. 1.

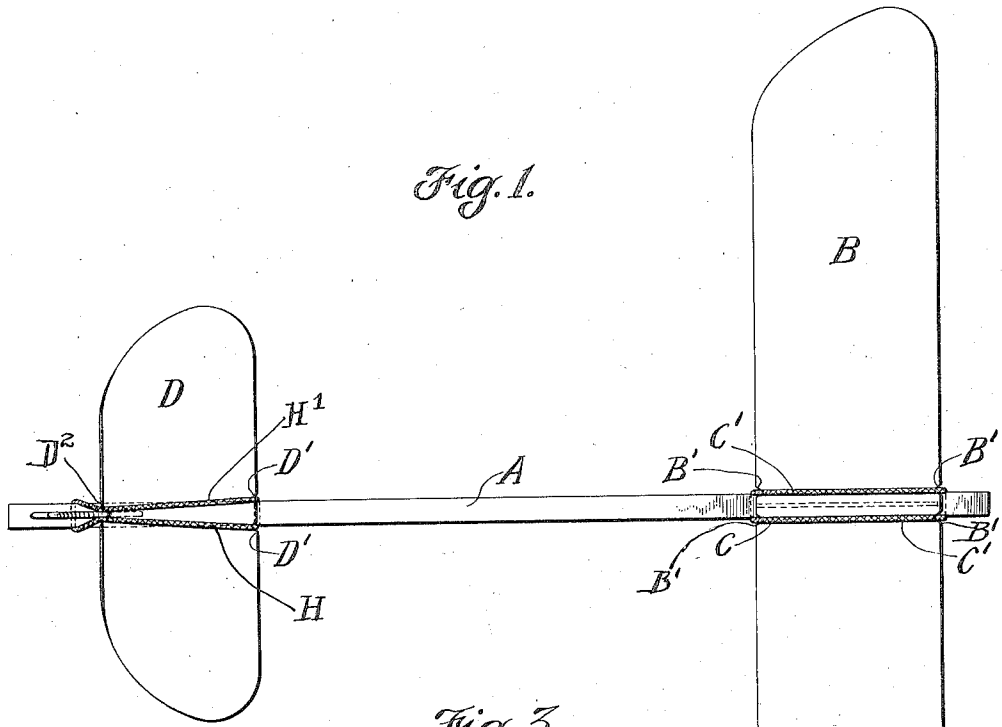
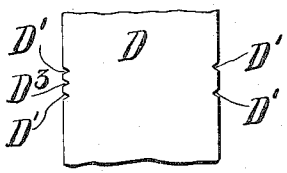


Fig. 3.



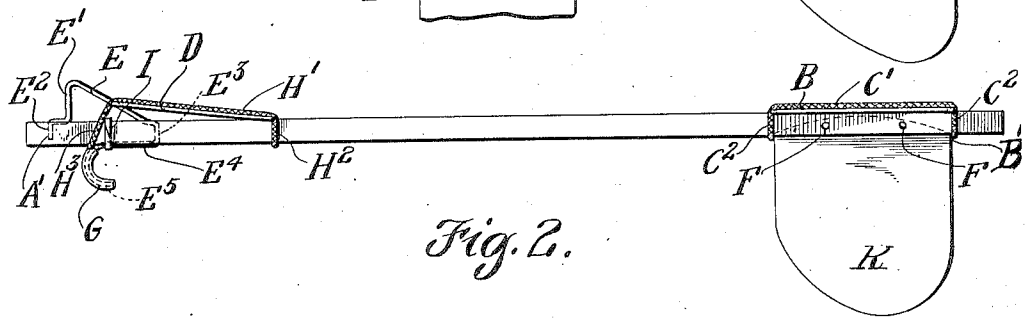


Fig. 2.

WITNESS:

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TOY AEROPLANE.

1,341,624. Specification of Letters Patent. Patented May 25, 1920.

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To all whom it may concern:

Be it known that I, ALFRED E. WERNER, a citizen of the United States of America, and residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Toy Aeroplanes, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to toy aeroplanes, particularly of the type which is intended to be propelled from a sling shot, and has for its object to provide for the construction and assembling of such a toy, so that its parts will be easily assembled and held in proper position and alinement.

The nature of my improvements will be best understood as described in connection with the drawings in which they are illustrated and in which—

Figure 1 is a plan view of a toy aeroplane embodying my improvements;

Fig. 2 is a side elevation of the aeroplane, and

Fig. 3 is a fragmentary view of the center of the rear plane or rudder, showing a modification of the construction shown in Fig. 1.

A, is the body of the plane, which, as shown, consists of a rectangular stick and which must be constructed with plane faces upon which the planes of the machine rest as they do in the construction shown on the flat top of the stick A. B is the main or rear plane which is formed with four notches, as indicated at B′, B′, B′, B′, the notches on the front and rear edges being symmetrically disposed with regard to the center line and at a distance from each other approximately equal to or slightly less than the breadth of the stick A. The plane B is held to the body A by elastic bands, two plies C and C′ of which pass over the top of the plane B and through the notches B′ and connect with the loops C^2 which pass under the stick A as shown, and it will be obvious that by this construction the plane B is accurately centered and practically rigidly alined.

K indicates the keel which is let into a slot in the under side of the stick A and secured by pins as indicated at F F. This keel should have a length equal to the breadth of the plane B so that the loops C^2 of the elastic band will contact with it as shown and thus secure the plane B in proper position on the stick. D is the front plane or rudder which, as shown in Fig. 1, is formed with two notches D′ D′ on its rear edge symmetrically disposed with regard to the center line at a distance from each about equal to the breadth of the stick A and the front end is formed with a broader notch indicated at D^2. Secured to the front end of the stick A is the inclined face E formed as shown and preferably of wire, the portion E′ extending down from the top of the incline and the portion E^2 entering a perforation in the stick as shown in Fig. 2. The intermediate portion of the wire as indicated at E^3 passes through the stick and the wire is then bent back and passes along the bottom of the stick, as indicated at E^4, and finally ends in a hook like projection E^5 which, by preference, is covered with rubber, as indicated at G. The hook in my construction is firmly held in position by a metal band I passing around it and around the body of the stick as shown in Fig. 2. The front plane or rudder D is placed on the top of the stick, as indicated, with its front notch D^2 resting on the incline E and it is held in place by an elastic band, two plies H, H′, of which pass over the top of the plane D and terminate in loops H^2 and H^3 which pass around the stick A. In the construction shown in Fig. 1 the front ends of the plies H and H′ pass through the notch D^2 which also serves to center the front end of the plane D on the slide E; the independent notches D′ D′ can be provided for the elastic bands and the central notch D^3 be provided to engage with the incline E as indicated in Fig. 3.

Having now described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a toy aeroplane the device for adjusting the angle of the vertical direction plane and for forming a hook consisting of the combination with a flat faced stick forming the body of the plane, of a wire passing through the stick at an intermediate position, said wire having its upper portion bent to form an incline and an end anchor in the stick and its lower portion bent to form a length lying in contact with the stick and terminating in a hook, and a

wire band passing around the stick and the lower portion of the wire lying in contact with the stick.

2. In a toy aeroplane the device for adjusting the angle of the vertical direction plane and for forming a hook consisting of the combination with a flat faced stick forming the body of the plane, of a wire passing through the stick at an intermediate portion, said wire having its upper portion bent to form an incline and an end anchored in the stick, and its lower portion bent to form a length lying in contact with the stick and terminating in a rubber covered hook, and a wire band passing around the stick and the lower portion of the wire lying in contact with the stick.

ALFRED E. WERNER.