Dec. 15, 1925. 1,565,438

J. GREIFE

TOY AMUSEMENT DEVICE

Original Filed Oct. 29, 1924

Fig. 1.

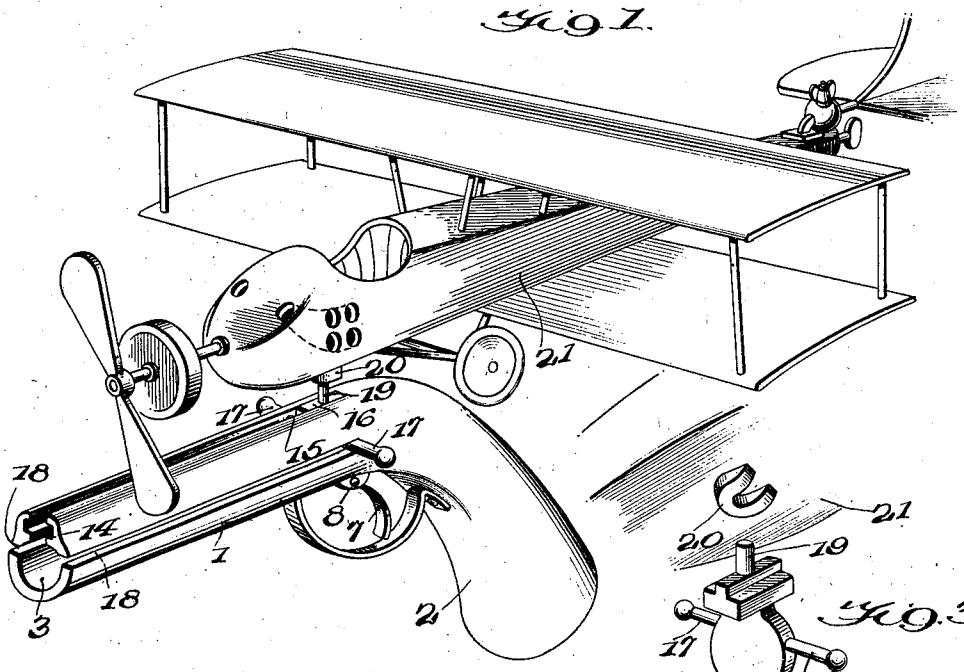


Fig. 3.

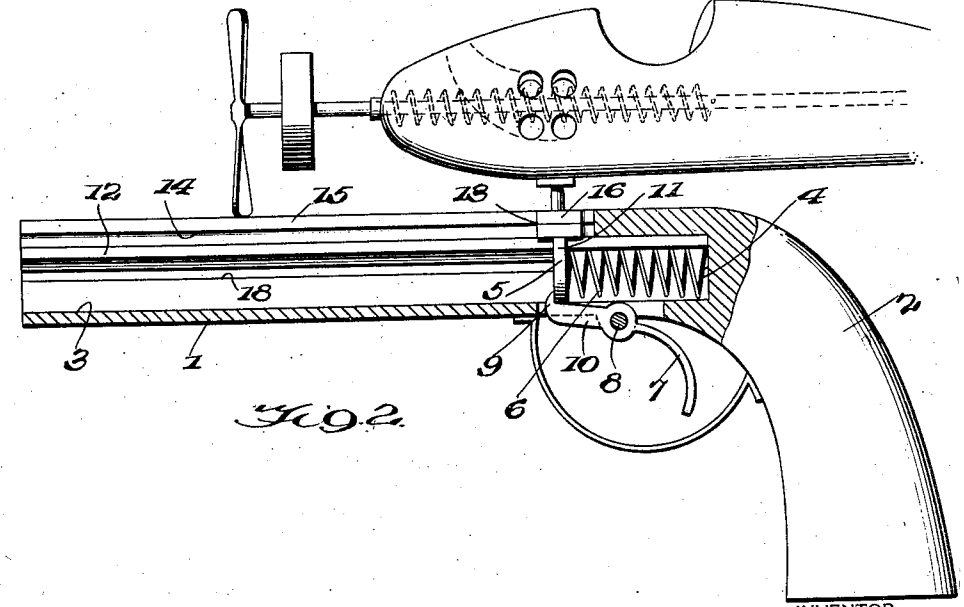


Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN GREIFE, OF DAYTON, KENTUCKY.

TOY AMUSEMENT DEVICE.

Original application filed October 29, 1924, Serial No. 746,625. Divided and this application filed March 18, 1925. Serial No. 16,473.

To all whom it may concern:

Be it known that I, JOHN GREIFE, a citizen of the United States, and resident of Dayton, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Toy Amusement Devices, of which the following is a specification.

My invention relates to toy amusement devices, and it consists of the combinations, constructions and arrangements herein described and claimed.

The present application is a division of my prior application for patent for an improvement in toy amusement devices, Serial #746,625, filed October 29th, 1924.

An object of the invention is to provide an amusement device comprising a projector of simplified construction which is adapted to be easily and conveniently operated to impart a relatively great force to a toy aeroplane, tending to propel the aeroplane a relatively great distance through the air.

Other objects and advantages will be apparent from the following description, considered in conjunction with the accompanying drawings, in which—

Figure 1 is a perspective view showing the projector and an aeroplane with cooperative elements of the aeroplane and the projector engaged with each other so that actuation of the projector will cause movement of the aeroplane through the air.

Figure 2 is a view partly in side elevation and partly in vertical section, showing the projector and the forward end portion of the body of the aeroplane, and

Figure 3 is a perspective group view showing the thrust imparting member of the projector and the thrust receiving element of the aeroplane at the bottom of the body of the latter.

The projector which is provided in the amusement device embodying the invention has a pistol-shaped body including a barrel 1 and a handle or grip portion 2. The barrel 1 has a bore 3 which is open at the forward end of the barrel and is closed by an end wall 4 at the rearward end of the barrel. A slide piece 5 is adapted to slide freely in the bore 3 and is connected with the end wall 4 by an expansion spring 6, one end of the spring 6 being secured to the end wall 4 in any suitable known manner and the other end of the spring likewise being secured in any suitable known manner to the slide piece 5. The arrangement is such that the slide piece will be propelled forcibly and at high velocity from the position shown in Figure 2 toward the forward end of the barrel as a result of the expansion of the spring 6 when a trigger 7 which is pivotally supported at 8 in a slot in the lower side of the barrel has been pressed rearwardly to cause a hook-shaped catch 9 at the forward end of an extension 10 on the trigger to move downwardly in the slot in the lower portion of the barrel out of the path of the slide piece 5.

The slide piece has a neck portion 11 extending slidably in a longitudinal slot 12 in the upper wall of the bore 3 and being merged at the upper end of the slot 12 into a head 13. The head 13 is slidable in a longitudinal guide-way 14 which extends in the upper part of the barrel parallel with the bore 3. The guideway 14 is open at the forward end of the barrel as is a longitudinal slot 15 in the upper wall of the guideway and in which a reduced upper portion 16 of the head 13 is slidably received. The slot 12 is also open at the forward end of the barrel. The slide piece is provided with a pair of lateral arms 17 which extend through lateral slots 18 in the side walls of the bore of the barrel. The lateral slots 18 are open at the forward end of the barrel and the handles 17 protrude laterally of opposite sides of the barrel and are adapted to be grasped and manipulated conveniently when it is desired to effect rearward movement of the slide piece 5 in the bore of the barrel to compress the spring 6 and to move the slide piece to position to be engaged by the catch 9 on the extension to the trigger, whereby the spring will be held in a compressed position until the trigger has been manipulated to effect release of the slide piece for forward movement in the bore of the barrel. The reduced upper portion 16 of the head of the slide piece carries an upstanding stud projection 19 which is adapted to pass between the arms of a substantially U-shaped thrust receiving block 20 on the bottom of the body 21 of a toy aeroplane, the inner wall of the thrust receiving block 20 defining what may be considered a notch 21 which is closed at its forward end and open at its rearward end for the reception of the upper end portion of the stud projection 19.

The thrust receiving member 20 is located on the bottom of the aeroplane body directly beneath the center of gravity of the aeroplane and in such position that the central line between the thrust receiving member 20 will be directly beneath the longitudinal central line of the aeroplane body.

It therefore will be manifest that the aeroplane will be projected forcibly through the air at a high velocity when the stud projection 19 or thrust imparting member is in engagement with the thrust receiving member 20 at the forward end of the slot 21 and the trigger 7 has been manipulated to permit the spring 6 to act to propel the slide piece forward in the barrel. Since the slot with which the upper end of the thrust imparting element 19 is engaged is open at its rearward end, the thrust imparting element will disengage the member 20 when the slide piece has reached the limit of its forward movement and the forward movement of the aeroplane at high velocity will continue.

Obviously, my invention is susceptible of embodiment in forms other than those illustrated in the accompanying drawings and I therefore consider as my own all such modifications and adaptations of the form of the device herein disclosed as fairly fall within the scope of the appended claim.

I claim:

A projector of the character described comprising a pistol-shaped body, the bore of the barrel of said body having an end wall at its inner end, said barrel having a slot in the lower portion thereof at the rearward end of the barrel and having a longitudinal guide way above the bore of the barrel parallel with said bore, said barrel also having a longitudinal slot establishing communication between said bore and said guide way and having also a longitudinal slot through the upper wall of the guide way, said longitudinal slot and said guide way being open at the forward end of the barrel, a slide piece movable longitudinally of the bore of the barrel and having a neck portion extending through the longitudinal slot between the bore of the guide way and the bore into said guide way and a head portion partially received in said guide way and having a reduced portion received in the longitudinal slot in the upper wall of the guide way, a propelling spring arranged between said slide piece and the inner end wall of the bore and attached at one end to said slide piece and at its other end to the inner end wall of the bore, said spring being adapted to be compressed by said slide piece when the latter is moved rearwardly from the forward end of the bore, trigger controlled means carried by said body and extending through the slot in the lower side of the barrel for engaging with said slide piece to hold the latter releasably in position to compress said spring, a thrust member upstanding from the head of said slide piece, and an aeroplane having a thrust receiving member on its bottom adapted to be engaged by the thrust member on said slide piece of the projector, said thrust receiving member on the bottom of the aeroplane body having a slot located below the longitudinal median line of the body and being open at its rearward end, said slot being adapted to receive the upper end portion of said thrust member.

JOHN GREIFE.