Dec. 11, 1956 J. SHERRI 2,773,329

TOY AEROPLANE LAUNCHING DEVICES

Filed Nov. 9, 1953

FIG. 1.

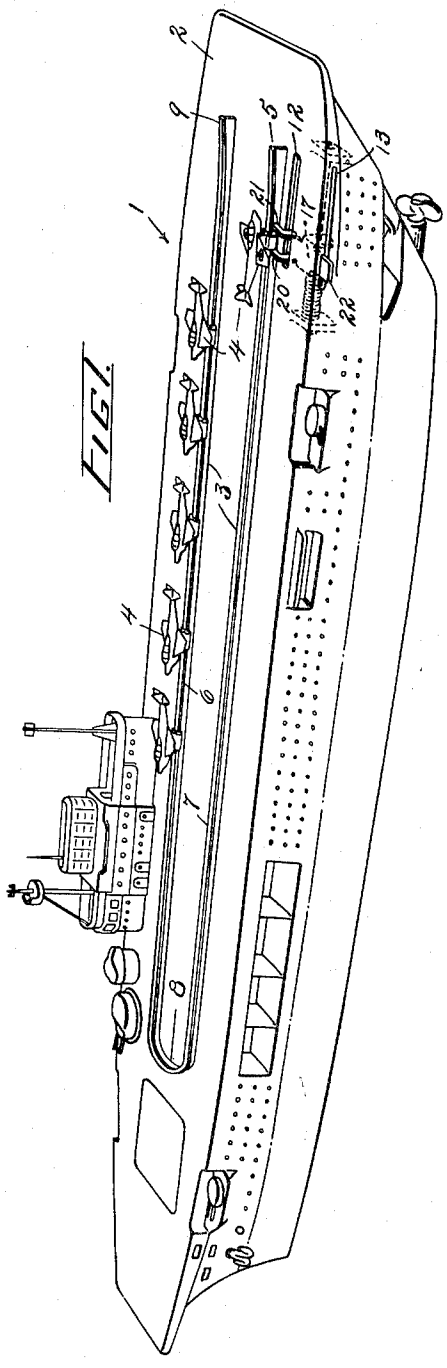


FIG. 3.

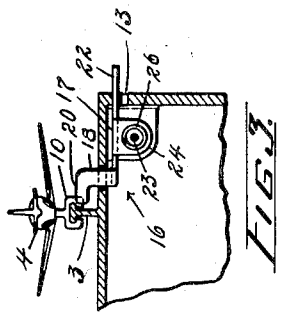
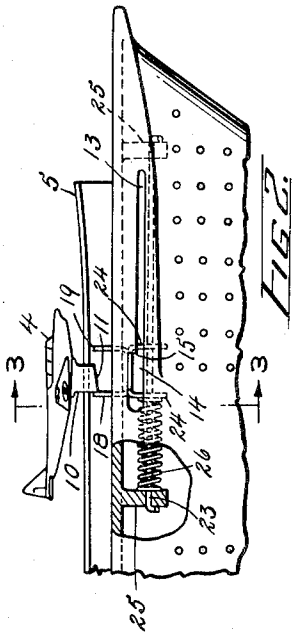


FIG. 2.



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TOY AEROPLANE LAUNCHING DEVICES

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1 Claim. (Cl. 46—81)

The invention relates to toy aeroplane launching apparatus particularly adaptable to toy aircraft carriers.

One object of the invention to provide an attractive and instructional toy capable of interesting both children and adults.

Another important object of the invention is to provide an ingenious and efficient toy aeroplane carrying and launching apparatus which will not easily get out of order and which can be produced at small cost.

With the above and other objects in view the invention consists in the novel features of construction, arrangements and combinations of parts set out in the present specification and more particularly pointed out in the claim for novelty following.

In describing the invention reference will be made to the accompanying drawings, in which:

Figure 1 is a perspective view of a toy aircraft carrier having my improved aircraft launching apparatus incorporated therewith.

Figure 2 is a fragmentary view in side elevation, partly broken away.

Figure 3 is a cross sectional view taken on the line 3—3 of Figure 2.

Like numerals of reference indicate corresponding parts in the various figures.

Referring to the drawings 1 indicates generally a toy aircraft carrier the particular design and arrangement of its equipment not being material to the present invention so long as it has the usual flat top 2.

3 is a trackway on which one or more toy aeroplanes 4 are adapted to be moved and from which they may be launched in the manner to be described fully hereinafter.

The trackway 3 may comprise a single straight length or may be curved according to desire so long as at least one of its ends is inclined upwardly slightly, as shown at 5, to facilitate launching a plane into the air, and for other important reasons to be more fully explained. In the present showing the trackway comprises two straight parallel runs 6 and 7 with a connecting loop 8 and having both of its ends inclined upwardly. While it is not essential to the working of the invention that the receiving end 9 of the trackway be inclined upwardly it is desirable that it be so formed as a means of preventing the aeroplanes from slipping backwardly off the end of the track.

Each toy aeroplane 4 is provided with a downwardly depending flanged runner 10 adapted to loosely embrace the rail so that the aeroplane can slide freely on the rail, and the bottom of each of said runners is tapered upwardly to its front end, as shown at 11, to make it adaptable to the launching device, as will be apparent as the description proceeds.

The flat deck of the carrier is cut through to provide a slot 12 which extends endwise of the deck at the outer side of track run from which the launching takes place from a short distance inward of the launching end to the extreme end thereof.

13 is a slot in the side of the carrier just below the

deck and paralleling the slot 12. The slot 13 for a relatively short part of its length from its inner end is enlarged upwardly in respect to the remainder thereof to provide a bay 14 terminating in a shoulder 15 extending at right angles to the slot.

16 indicates generally a spring actuated impeller by means of which a plane resting on the trackway in advance of the impeller is forcibly catapulted along the inclined delivery end of the track and into the air.

The impeller 16 comprises a flat medial body part 17 extending in a direction transversely of and just beneath the deck; a pair of endwise extending arms 18 and 19 extending upwardly through the slot 12 in the deck and having fingers 20 and 21 turned outwardly on a horizontal plane into the path of the flanged runner 10 of a plane on the delivery end of the track; and a trigger member 22 consisting of flat handle extending from the end of the body 17 opposed to the end from which the arms 18 and 19 extend and projecting through the enlarged part 14 of the slot in the side of the carrier, so as to be readily grasped by the hand of the person launching the plane.

The impeller 16 is supported for rotary reciprocation transversely in respect to the adjacent run of the trackway by means of a pin 23 positioned beneath the deck in parallel with the adjacent end of the trackway and extending loosely through lugs or flanges 24 which extend downwardly at opposite sides of the body 17 of the impeller, the said pin being of greater length than the slots 12 and 13 and extending therebeyond at each end and being supported at its ends in brackets 25 suitably fixed to the carrier frame or to some other convenient part.

A coil spring 26 encircles the pin 23 between the rearmost bracket 25 and the corresponding side flange 24 and is held in compression by said members when the trigger member 22 is in the enlarged part 14 of the slot 13 and in abutting contact with the shoulder 15, which constitutes a detent to hold the spring to its loaded condition.

In the use of this invention the launching device 16 is brought to its rearmost position so that the trigger 22 will lie in the upwardly enlarged part 14 of the slot 13, in which position the spring 26 will be in a state of compression and will force the trigger member 22 against the shoulder 15 so that the device is ready for forceful forward movement coincident upon the exercise of downward pressure on the said trigger to bring it out of register with the shoulder. In the retracted condition of the launching device the fingers 20 and 21 will lie behind the inclined portion 5 of the track.

To launch a plane into the air it is simply necessary to move the said plane along the track to the position where its runner 10 will lie between the fingers 20 and 21 with the rearmost end of the said runner preferably abutting the finger 20. Owing to the bottom of the runner of the plane being tapered upwardly to its front end it will be found that the plane will readily ride over the rear finger 20 to its position between the fingers. The trigger is then tipped downwardly to bring it out of engagement with the shoulder 15, upon which the spring 26 will act to impel the launching device forwardly and will thus cause the plane to be propelled rapidly up the inclined end of the track and into the air.

While I have described and shown herein the present preferred means for carrying out my invention this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction as set out herein but wish to avail myself of such variations and modifications as come within the scope of the appended claim.

What I claim is:

In apparatus for launching a toy aeroplane from a flanged track, said track being inclined upwardly to one

end thereof from a point near said one end, a projectile simulating a toy aeroplane having a flanged runner slidable on said track, said flanged runner loosely embracing the flanges of said track, said runner having a vertical rear face and an upwardly inclined lower face, a fixed pin positioned on a lower plane than, and to one side of, said track and extending parallel to said track, an impeller having a body part movable lengthwise of and rotatable on said pin, a pair of arms connected to said body and extending upwardly at the side of said body adjacent to said track, fingers carried by said arms spaced from each other lengthwise of said impeller and extending laterally into the path of said runner and receiving said runner therebetween when the projectile is moved manually along said track, a coil spring encircling said pin rearwardly of said impeller body, stop means restraining movement of said spring in a direction rearwardly of

said impeller body, a detent, and a handle projecting laterally from said impeller body at the side thereof removed from said arms, said handle being engageable with said detent to compress said coil spring between said handle and said stop means and on release from said detent freeing said coil spring whereby same will propel said impeller forwardly and cause said rearmost finger to forcefully impinge the vertical face of said runner and cause said projectile to be expelled from said track.

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