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2,499,666

MODEL AIRPLANE LAUNCHING APPARATUS

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Fig. 1.

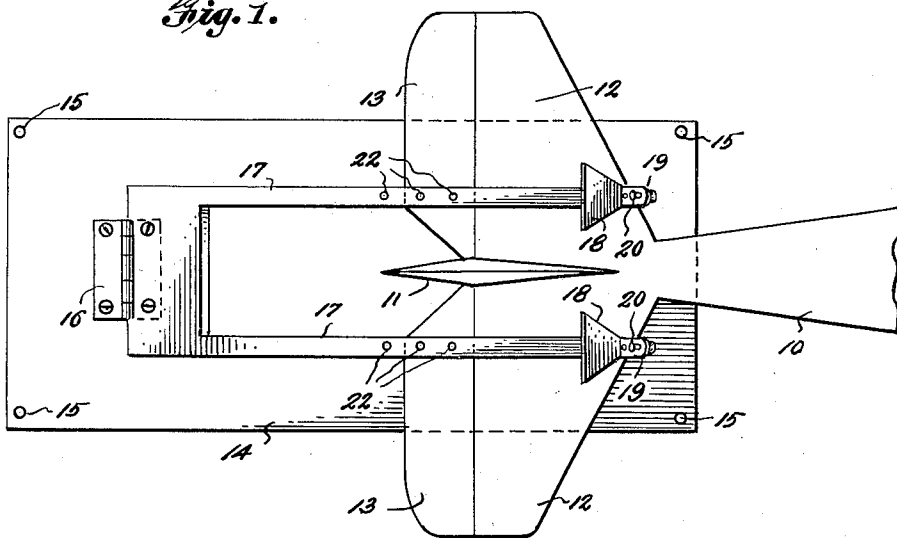


Fig. 4.

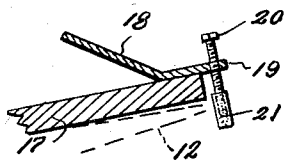


Fig. 2.

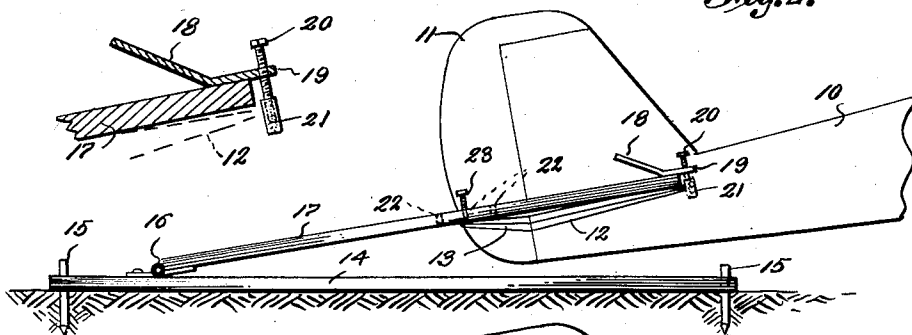
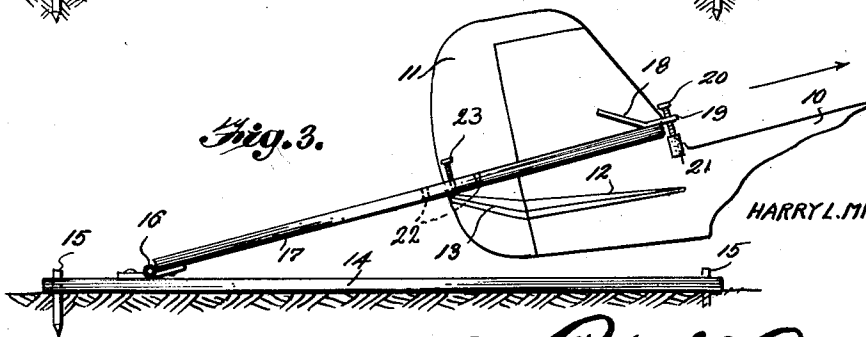


Fig. 3.



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MODEL AIRPLANE LAUNCHING APPARATUS

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6 Claims. (Cl. 244-110)

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The present invention relates to model airplane launching apparatus and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

Generally the invention relates to a device designed for use with the so-called "U-control" for model airplanes. This "U-control" which is well known in the art comprises a handle adapted to be grasped in the hand of the person flying a model, self-powered airplane and cables interconnect the upper and lower ends of the handles with a device in the model airplane which, in turn, raises and lowers the elevators of the model airplane thereby to control the flight thereof. The present invention eliminates the necessity for a second person's attendance to the launching of such model airplane which, when in flight, will describe a circular pathway about the person controlling such flight. With the present device, when sufficient engine speed has been attained in the model airplane, the person controlling the flight of the model may launch the same without outside assistance by merely raising the elevators through the use of the "U-control" thereby freeing the model airplane for takeoff and flight.

It is accordingly an object of the invention to provide a device of the character set forth which is simple in construction and operation, inexpensive to manufacture and yet effective and efficient in use.

Another object of the invention is the provision of a device of the character set forth having a minimum number of parts.

A further object of the invention is the provision, in a device of the character set forth, of novel means for maintaining a latching member in latching contact with the stabilizers of a model airplane.

Another object of the invention is the provision of novel means for adjusting the aforesaid latching means.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawing, in which:

Figure 1 is a plan view of an embodiment of the invention,

Figure 2 is a side elevational view thereof,

Figure 3 is a view similar to Figure 2 but showing the device in unlatched position, and

Figure 4 is a fragmentary sectional view illustrating certain details of the invention.

Referring more particularly to the drawing, there is shown therein a model airplane having a fuselage 10, a rudder 11, stabilizers 12 and ele-

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vators 13. It is assumed for the purposes of the present invention and description thereof that the model plane illustrated is equipped with the above described "U-control" wherein the elevators 13 may be moved upwardly and downwardly from a remote point by a person having a handle whose upper and lower ends are connected by cables to a device within the model plane which, in turn, controls the movement of the elevators

13. The device comprising the present invention includes a substantially rectangular platform 14 which may be securely fastened to the ground by means of pegs 15 extending through the same at each corner thereof.

Adjacent the rear end of the platform 14 there is connected by means of a hinge 16 a latching device having a pair of forwardly extending arms 17 to the upper forward ends of each of which is affixed a rearwardly and upwardly extending pressure fin 18. The fins 18 may be bent to any desired angle and are each provided with a forwardly extending projection 19 in which a latching screw 20 is vertically and threadably mounted. The lower end of each of the screws 20 are provided with buffers 21 which may be in the form of rubber tubing frictionally mounted thereon.

Approximately midway in each of the arms 17 is a plurality of spaced vertical openings 22 and an adjusting screw 23 is selectively mounted in one of such openings in each of the arms 17 and preferably provided with a smooth bottom.

In operation, it will be apparent that the model airplane, prior to launching, may be so positioned with relation to the present invention that the buffers 21 of the latching screws 20 abut against the forward ends of the stabilizers 12 when the engine of the model airplane is started, the slipstream will impinge against the fins 18 thereby causing a downward pressure of the arms 17 upon the upper surfaces of the stabilizers 12 and elevators 13. When the operator considers the plane ready to launch, he may, through manipulating his "U-control" cause the elevators 13 to rise thereby lifting the arm 17 and releasing the buffers 21 from contact with the forward edges of the stabilizers 12 thus allowing the model airplane to take off. It will be apparent that greater or lesser downward pressure may be had by bending the fins to desired position. It will also be apparent that by moving the screws upwardly or downwardly the amount of lift necessary on the elevators to release the model airplane may be adjusted.

Again, it will also be apparent that the screws

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23 may be selectively placed in the holes 22 so that the bottom edges of such screws will impinge upon the rearward edges of the elevators 13 and that by adjusting the depth of the screws 23 in the holes 22 that the effective lift of the elevators necessary to release the airplane may be adjusted.

It will also be apparent that while the device comprising the present invention has been described with regard to a "U-control" device, that any other remotely controlled means such as a radio control or the like may be utilized to launch a model airplane utilizing the present invention so long as some remotely controlled means is provided for raising and lowering the elevators 13.

While but one form of the invention has been shown and described herein, it will be readily apparent to those skilled in the art that many minor modifications may be made without departing from the spirit of the invention or the scope of the appended claims.

What is claimed is:

1. A device of the character described comprising a platform, pegs for holding the platform upon the ground, a pair of parallel arms hinged adjacent the rear of the platform upwardly and rearwardly extending fins affixed to the upper sides of the arms adjacent the forward ends thereof and latching members vertically dependant from the forward ends of said arms.

2. A device of the character described comprising a platform, pegs for holding the platform upon the ground, a pair of parallel arms hinged adjacent the rear of the platform, upwardly and rearwardly extending fins affixed to the upper sides of the arms adjacent the forward ends thereof, latching members vertically dependant from the forward ends of said arms and elevator-engaging members selectively positioned in the center portion of said arms.

3. A device of the character described comprising a platform, pegs for holding the platform upon the ground, a pair of parallel arms hinged adjacent the rear of the platform, upwardly and rearwardly extending fins affixed to the upper sides of the arms adjacent the forward ends thereof, forward extensions for said fins, a ver-

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tically dependant detent threadably mounted in each of said extensions and a buffer of yieldable material affixed to the lower end of each detent.

4. A device of the character described comprising a platform, pegs for holding the platform upon the ground, a pair of parallel arms hinged adjacent the rear of the platform, upwardly and rearwardly extending fins affixed to the upper sides of the arms adjacent the forward ends thereof, forward extensions for said fins, a vertically dependant detent threadably mounted in each of said extensions, a buffer of yieldable material affixed to the lower end of each detent and an elevator-engaging screw vertically and selectively positioned in the center portion of each of said arms.

5. A device of the character described comprising a platform, pegs for holding the platform upon the ground, a pair of parallel arms hinged adjacent the rear of the platform, upwardly and rearwardly extending fins affixed to the upper sides of the arms adjacent the forward ends thereof, latching members vertically dependant from the forward ends of said arms and elevator-engaging members selectively positioned in the center portion of said arms, said fins being formed of flexible material whereby the same may be bent to selected angles.

6. A device of the character described comprising a platform, pegs for holding the platform upon the ground, a pair of parallel arms hinged adjacent the rear of the platform, upwardly and rearwardly extending fins affixed to the upper sides of the arms adjacent the forward ends thereof, forward extensions for said fins, a vertically dependant detent threadably mounted in each of said extensions, a buffer of yieldable material affixed to the lower end of each detent and an elevator-engaging screw vertically and selectively positioned in the center portion of each of said arms, said fins being formed of flexible material whereby the same may be bent to selected angles.

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No references cited.