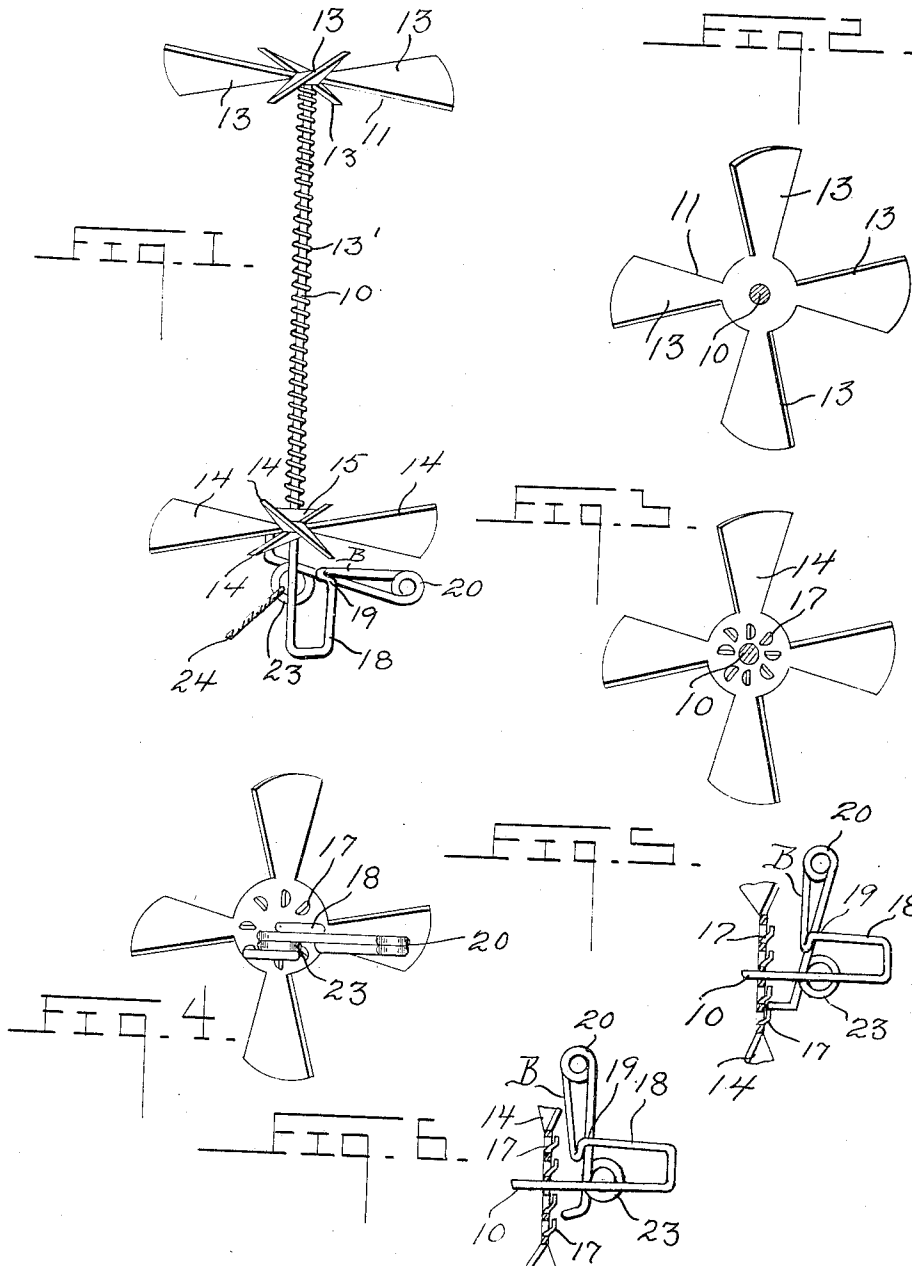


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TOY FLYING MACHINE.
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942,020.

Patented Nov. 30, 1909.



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TOY FLYING-MACHINE.

942,020

Specification of Letters Patent.

Patented Nov. 30, 1909.

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To all whom it may concern:

Be it known that I, JOSHUA STOMBERG, a citizen of the United States, residing at Port Wing, in the county of Bayfield and State of Wisconsin, have invented certain new and useful Improvements in Toy Flying-Machines, of which the following is a specification.

This invention relates to toys and more particularly to a flying toy, and has for its object to provide a toy of this class which may be constructed at an extremely low cost, and which will be efficient and durable.

Another object is to provide a novel form of check means for holding the device against operation until it is desired to release it for flights.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side view of the device, Fig. 2 is a view of the inner side of the rigid propeller, Fig. 3 is a similar view of the outer side of the revoluble propeller, Fig. 4 is a bottom view of the device, Fig. 5 is a detail side view of the check means in engaged position, Fig. 6 is a similar view showing it in disengaged position.

Referring to the drawings, there is shown a toy comprising a central shaft 10 having secured rigidly to one end the propeller 11 which may be of any suitable type, but as shown is stamped integrally from one sheet of metal preferably aluminum, and has four radial blades 13. This comprises the forward or top end of the toy, and secured to the propeller 11, there is a helical spring 13' engaged loosely around the shaft 10 and connected similarly to a second propeller 14 carried revolubly on the shaft and held against inward sliding movement by means of a collar 15 secured to the shaft. The manner in which the spring is engaged with the propellers is by forming hooks in the opposite ends of the spring which are engaged through a simple perforation formed centrally of the blades. The lower or rear propeller 14 carries upon its outer face a series of ratchet ridges 17, stamped therein. The

lower end of the shaft 10 is extended below the propeller 14, and turns upwardly to form a U-shaped portion 18 which serves as a handle for the holding of the device during its winding and release. A spaced distance from the vane 14 the upwardly extended portion of the wire forming the shaft 18 is turned laterally forming a shoulder as at 19 at right angles to the plane of the U-shaped portion, thence horizontally outwardly at right angles to the shoulder and formed into a helix 20, from whence it extends inwardly again, past the axis of the shaft 10 and upwardly, its end portion engaging resiliently against the ratchet portions 17. The portion extending from the helix 20 to the extremity of the wire is called the trigger portion and immediately of its length there is formed an eye 23, in which there is engaged a string 24 serving as a restraining and guiding member, and also to release the trigger as will be subsequently described. The helix 20 is so formed as to normally throw the trigger portion upwardly above the shoulder 19, and against the horizontal portion designated B on the drawings. The helix is also so formed that the trigger portion presses outwardly toward the U-shaped portion 18, and against the portion B, so that when pulled downwardly the trigger slides inwardly and under the shoulder 19, holding the trigger permanently out of engagement with the ratchet on the propeller 14, until properly set.

In use, when it is desired to wind the device up the propeller 14 is preferably grasped in the left hand from the inside, while the right hand is used to rotate the shaft 10 by manipulation of the handle portion 18, or by means of the forefinger pressed against the helix 20. When it is desired to set the machine in flight, the handle portion 18 is grasped between the thumb and forefinger of one hand and the device pointed in the direction it is desired for it to fly and the string 23 pulled, which releases the trigger. The device is then immediately released when it will fly in the direction pointed. The string 24 may be held by the operator if desired, to guide the toy and to prevent it from doing damage or becoming lost. If the string is released it serves somewhat as a guiding rudder or tail.

It will be seen from the foregoing that a very simple toy is provided comprising but four elements, each of which is of the sim-

plest character, and adapted to be manufactured at the lowest possible cost.

What is claimed is:

1. A toy of the class described, comprising
5 a shaft, a propeller secured to one end thereof, a second propeller engaged revolubly upon the shaft, resilient means connecting the propellers, a ratchet portion on the second named propeller, said shaft having
10 one extremity bent to engage resiliently against the ratchet portion to hold the second named propeller against rotation at times, and means for holding the shaft out of such engagement at times.

15 2. In a device of the class described, a propeller stamped from sheet material, a concentric series of ratchet teeth stamped therein, a shaft engaged revolubly there-through, a second propeller carried rigidly
20 at one end of the shaft spaced from the first propeller, and a resilient member secured to the propellers, one end of the shaft being bent inwardly to engage the ratchet teeth at times, and means for holding the shaft
25 out of engagement with the ratchet teeth at other times.

3. A toy of the class described comprising
30 a shaft, a propeller rigidly secured to one end thereof, said propeller being stamped integrally from sheet material, a second similar propeller engaged revolubly upon the shaft, a helical spring connecting the propellers, a ratchet portion carried by the second propeller, said shaft having one ex-

35 tremity extended through the last named propeller and turned inwardly, its extremity being disposed resiliently against the ratchet portion to hold the second propeller against rotation at times, and means for holding the
40 extremity of the shaft out of such engagement at times.

4. A toy of the class described comprising
45 a wire shaft, a propeller secured to one end thereof, a second propeller revolubly engaged inwardly of the first, a resilient member secured to the two propellers, ratchet
50 portions carried on the outer face of the second propeller, the adjacent end of the shaft being extended through the propeller and turned backwardly to a point a spaced distance from the propeller to form a handle
55 portion, the end portion being bent outwardly and thence inwardly to form a trigger, its extremity being turned upwardly to engage the ratchet portion upon the adjacent propeller, the outwardly turned portion
60 of the wire having a projection formed therein adapted to engage over the trigger at times to hold it out of engagement with the ratchet portion, and means for withdrawing said trigger from engaged position.

In testimony whereof I affix my signature, in presence of two witnesses.

JOSHUA STOMBERG.

Witnesses:

EBEN OLSON,
JUSTUS DAHLSTEDT.