

953,942.

Patented Apr. 5, 1910.

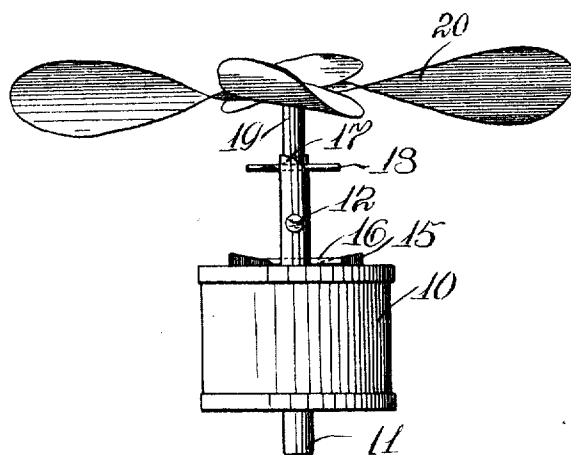


Fig. 1.

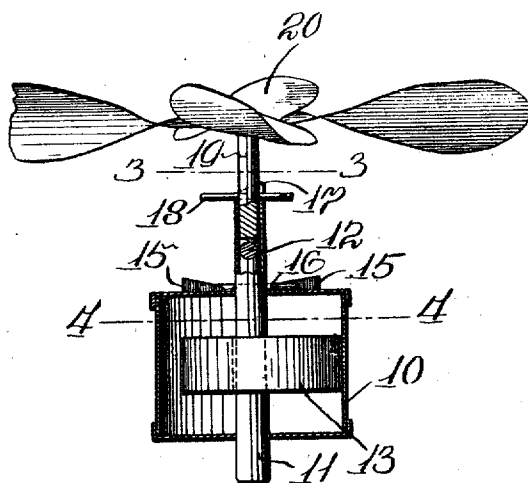


Fig. 2.

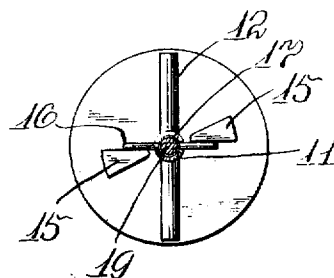


Fig. 3.

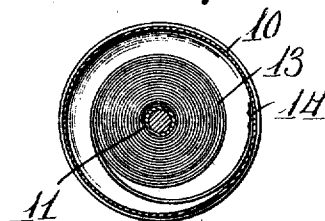


Fig. 4.

Witnesses:
Frank L. Guthrie
John L. Lurvey

Lafayette Briggs, Inventor
By his Attorney
W. B. Hutchinson.

UNITED STATES PATENT OFFICE.

LAFAYETTE BRIGGS, OF DALTON, MASSACHUSETTS.

FLYING TOY.

953,942.

specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed April 6, 1909. Serial No. 488,188.

To all whom it may concern:

Be it known that I, LAFAYETTE BRIGGS, of Dalton, Berkshire county, Massachusetts, have invented a new and useful Improvement in Flying Toys, of which the following is a full, clear, and exact description.

My invention relates to improvements in flying toys, and the object of my invention is to produce an interesting and simple toy in which a spring barrel containing a spring is used, and in which the flying mechanism has a detachable connection with the spring barrel so that by a movement of the thumb or finger, the projectile or flying part of the device may be released to the action of the spring and caused to rotate rapidly so that its fans will propel it high into the air.

My invention is intended to provide details and accessories for this so that the spring can be easily wound and easily released, and so that the whole device can be made in simple form and of inexpensive structure.

I am aware that toys have been used having rotatable fans, but my invention is intended to put this principle in a very simple and complete shape so that the toy can be sold cheaply and yet will be a substantial and efficient article capable of operating in a very satisfactory manner.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a side elevation of the toy embodying my invention. Fig. 2 is a sectional elevation with parts broken away. Fig. 3 is a sectional plan on the line 3—3 of Fig. 2, and Fig. 4 is a cross section on the line 4—4 of Fig. 2.

The toy is provided with a spring barrel 10 preferably closed at top and bottom, and extending through the spring barrel so as to slide a little, is a tubular rod 11 which, however, need not be tubular except at the top, as will presently appear, and the rod 11 has a cross piece 12 above the spring barrel which enables the rod to be conveniently turned so as to wind up the spring 13 which is coiled within the spring barrel and has one end secured to the spring barrel as shown at 14 in Fig. 4, while the other end is attached to the rod 11. The spring barrel 10 has teeth 15 on the upper side, which teeth are ratchet teeth but may be

applied in any preferred or usual way, and these engage a cross piece or pin 16 which projects through the rod 11. At its upper end which is necessarily hollow, the tube 11 terminates in teeth 17 which are at least two in number, and these engage the abutment or cross-piece 18 on the stem 19 of the projectile or flier which comprises said stem and the blades 20 which radiate from the stem and can be given any preferred configuration. They are arranged like ordinary propeller blades, however, so that when rotated the pitch of the blades will cause them to act on the air in a manner to lift the stem 19. This serves as ballast so as to properly regulate the flight of the projectile, and obviously the part above the cross-piece 18 can be given any desired configuration.

When the device is to be used the spring is wound up by grasping the spring barrel in one hand and turning the rod 11 by means of the cross-piece or handle 12. The rod is held in the right relation to the spring barrel and the spring held wound up by means of the cross-piece 16, which I will term a pawl and which engages the teeth 15. The stem 19 is then inserted in the hollow end of the rod 11. To project the device and cause the projectile to fly, the operator simply pushes up slightly with his thumb or finger on the rod 11 which causes the pawl 16 to clear the teeth 15 and the spring 13, then gives a quick impulse to the rod 11 and rapidly rotates it so that the fans 20 gripping the air, rise together with the stem 19 from the holding device which comprises the lower portion of the toy containing the spring.

It will thus be seen that I provide a very simple and attractive toy which shows the principles of a flying machine.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent:—

1. An apparatus of the kind described, comprising a spring barrel, a rod, tubular at its upper end, extending longitudinally through the spring barrel and adapted to turn therein, a pawl and ratchet connection between the rod and the spring barrel, said connection being broken by the longitudinal movement of the rod, a helical spring connecting the rod with the spring barrel, and teeth on the upper end of the rod.

2. An apparatus of the kind described,

comprising a spring barrel, a rod, tubular
at its upper end, movable longitudinally in
the spring barrel, a finger pin extending
transversely through the rod above the
5 spring barrel, a pawl and ratchet connection
between the rod and the spring barrel, said
connection being broken by the longitudinal
movement of the rod, a helical spring con-
necting the rod and spring barrel, and means
10 at the upper end of the rod for detachably
engaging a flying projectile.

3. An apparatus of the kind described,
comprising a spring barrel, a rod extending
longitudinally through the spring barrel and

held to slide and rotate therein, said rod be- 15
ing tubular at its upper end and having
teeth thereon, a pawl and ratchet connection
between the rod and the spring barrel, said
connection being broken by the longitudinal
movement of the rod, and a projectile having 20
propeller blades, a pendent stem to enter the
aforesaid hollow rod, and a pin to engage
the teeth of said rod.

LAFAYETTE BRIGGS.

Witnesses:

JOHN HARDIMAN,
CHARLES EHRLER.