

J. D. MILLS.
AERIAL TOY.

APPLICATION FILED NOV. 22, 1910.

1,002,171.

Patented Aug. 29, 1911.

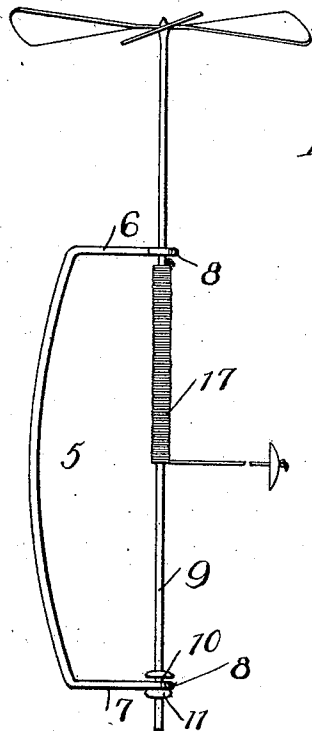


Fig. 1

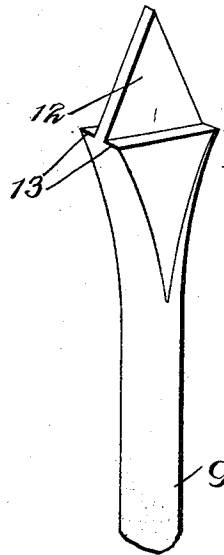


Fig. 2

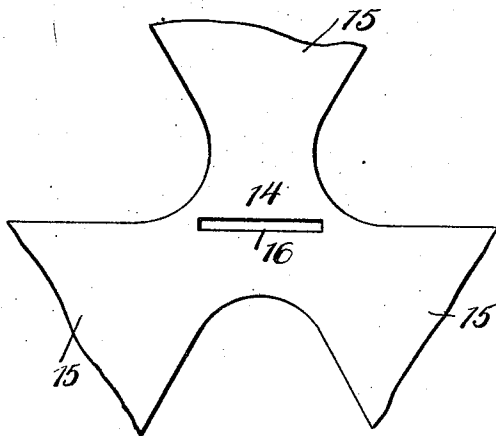


Fig. 3

Witnesses

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AERIAL TOY.

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Specification of Letters Patent.

Patented Aug. 29, 1911.

Application filed November 22, 1910. Serial No. 593,728.

To all whom it may concern:

Be it known that I, JOHN D. MILLS, a citizen of the United States, residing at Warwood, in the county of Ohio and State of West Virginia, have invented new and useful Improvements in Aerial Toys, of which the following is a specification.

This invention relates to improvements in aerial toys and has for its object the provision of a device of that kind embodying a handle and a shaft to be permanently combined with and rotatably mounted in the handle and having one end adapted to loosely receive a propeller wheel, so that when the shaft is rotated the propeller wheel will be launched into the air and after flying for a time will return to the ground.

Another object is the provision of an operating cord having one end permanently attached to the shaft, the latter being so positioned that the cord may be wound thereon in an easy and expeditious manner.

With these and other objects in view, which will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claim; it being understood that various changes in the form, proportion, size, and minor details of the device may be made, within the scope of the appended claim, without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming part of the specification; Figure 1 is a side elevation of the device. Fig. 2 is a perspective view of one end portion of the shaft. Fig. 3 is a detail plan view of the central portion of the blade.

Similar numerals of reference are employed to designate corresponding parts throughout.

What will subsequently be termed a handle is shown to be formed of a single length of wire and comprises a body portion 5, the said V-shaped body portion being of any suitable length and terminating at its opposite ends in lateral extensions 6 and 7, the said lateral extensions being parallel and lying in a common plane and terminating in alining eyes 8.

What will subsequently be termed a shaft is designated by the numeral 9, said shaft being preferably formed of a single length

of wire or its equivalent, being somewhat greater in length than the distance between the extensions 6 and 7. The shaft 9 is rotatably mounted on the eyes 8, and adjacent to one end is provided with a pair of spaced collars 10 and 11, the said collars bearing on the opposite sides of one of said eyes and serving to prevent endwise movement of the shaft. The opposed inner surfaces of the collars 10 and 11 are plane so as to insure a smooth bearing for the shaft 9. That end of the shaft remote from the collars 10 and 11 extends beyond the adjacent extension 6, and at its terminal portion is provided with a spear-shaped head 12, the thickness of the said head being somewhat less than the diameter of the shaft so as to provide bearing shoulders 13.

The propeller wheel comprises a central body portion 14, from which extend the radial legs 15. The body portion 14 is centrally provided with an oblong opening 16, to loosely receive the spear-shaped head 12.

Fixedly secured to the shaft 9 is one end of an operating cord 17 which is adapted to be wound on the shaft 9 when the latter is turned by the fingers of the operator.

In the operation of the device the shaft is rotated in one direction, by means of the fingers of the operator until the operating cord is completely wound thereon, after which the propeller wheel is placed on the head 12, in such position that the sides of the opening 16 thereof will bear on the shoulders 13. When the parts are so positioned the operator with the fingers of one hand grasps the body portion 5 of the handle, while with the opposite hand pulls on the free end of the cord 17 and when the cord becomes unwound from the shaft the propeller wheel mounts into the air and after flying a distance returns to the ground.

It will of course be understood that the space between the shaft and body portion 5 of the handle will be sufficient to receive the fingers of the operator and prevent the fingers from engaging with the shaft 9.

From the foregoing, it is evident that I have provided a device which is comparatively simple in structure and inexpensive to manufacture, embodying few parts and these so arranged that the danger of derangement will be reduced to a minimum.

I claim:—

In a toy, a shaft having a pair of spaced integral collars near one end thereof and its

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other end formed into a spear pointed terminal having transverse shoulders extending on either side thereof, said terminal being in the form of a narrow oblong in cross section, 5 a U-shaped frame having terminal eyes mounted on the shaft by said eyes, one of said eyes being located between the integral collars of said shaft, the central portion of said frame constituting a handhold, the shoulders of the shaft forming a seat, a bladed flier removably disposed on the spear point- 10 ed terminal and having a relatively narrow slit centrally located therein to receive the narrow oblong portion of said terminal and a cord wound on the shaft between the terminals of the frame. 15

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

JOHN D. MILLS.

Witnesses:

W. E. HELFENBINE,
E. G. WARNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."