M. LALONDE

FLYING TOY.

APPLICATION FILED MAR. 10, 1919.

1,326,457. Patented Dec. 30, 1919.

FIG. 1

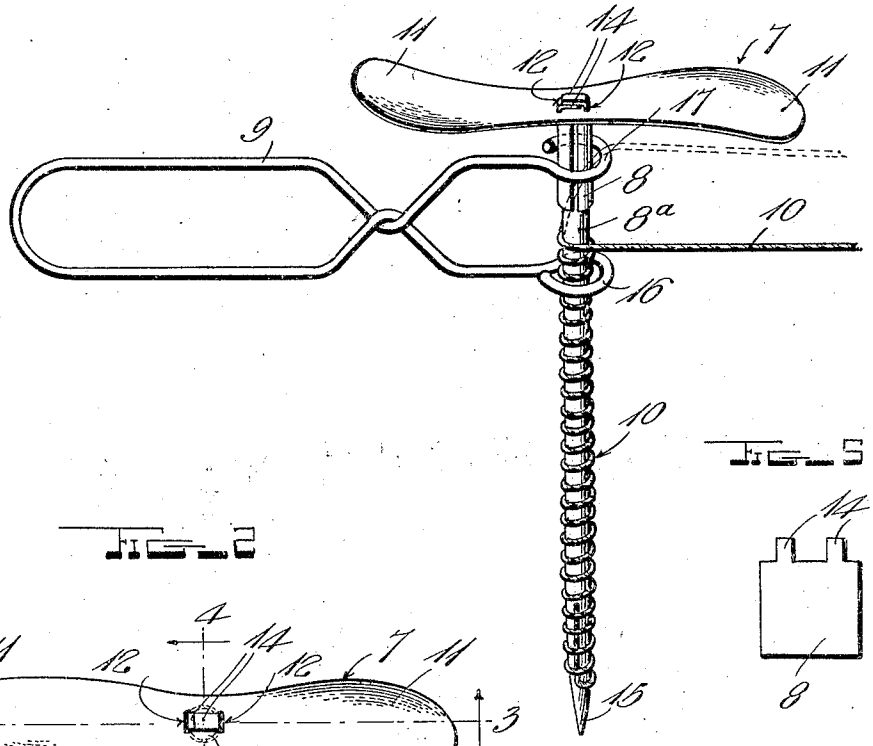


FIG. 5

FIG. 2

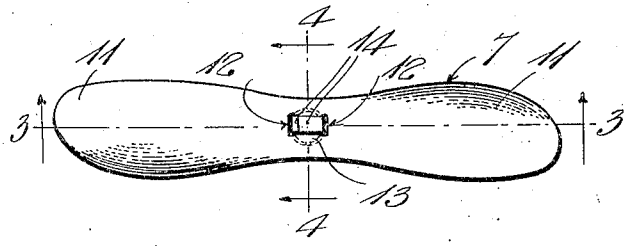
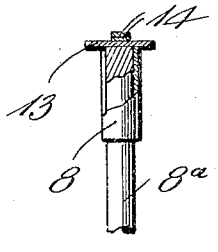


FIG. 4



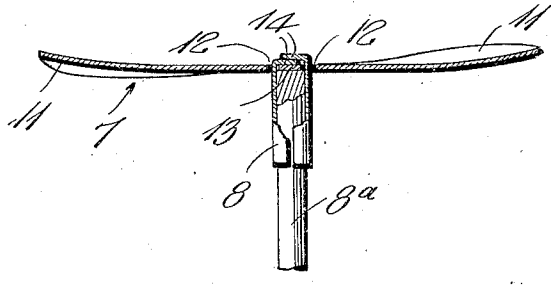


FIG. 3

Witness

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UNITED STATES PATENT OFFICE.

MOSES LALONDE, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO SPRINGFIELD EXPERIMENTAL AND MANUFACTURING COMPANY, OF SPRINGFIELD, MASSACHUSETTS.

FLYING TOY.

1,326,457. Specification of Letters Patent. **Patented Dec. 30, 1919.**

Application filed March 10, 1919. Serial No. 281,670.

To all whom it may concern:

Be it known that I, MOSES LALONDE, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Flying Toys; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to toys, and it relates more specifically to an improved flying toy or airplane top.

One object of the invention is to provide a toy of this character which is constructed of few and simple parts of such simple shape and relatively cheap material that the device may be manufactured at an exceedingly low cost.

Another object is to provide a device of this character which is capable of being very quickly and easily prepared for operation.

Other objects and advantages may become apparent to persons who read the following details of description in connection with the accompanying drawings, in which:—

Figure 1 is a perspective view of my complete flying toy in the position for being operated.

Fig. 2 is a top plan view.

Fig. 3 is fragmental detail view partly in elevation and partly in vertical section along the line 3—3 of Fig. 2.

Fig. 4 is a view similar to Fig. 3, except that the section is taken at right angles thereto, or along the line 4—4 of Fig. 2.

Fig. 5 is a view showing a sheet metal blank from which the hub member is formed.

Referring to these drawings in detail, in which similar reference characters correspond with similar parts through the several views, the device consists of five primarily separate parts 7, 8, 8^a, 9, 10 and 11, respectively, the latter being a string of flexible element of any appropriate kind. The member 7 is preferably formed from a blank of sheet aluminum or other appropriate material and comprises a plurality of propeller blades 11, two of these blades being shown in the present instance. The propeller member or blade 7 is formed with parallel apertures or slots 12 at opposite sides of its central portion 13, and this central portion coöperates with a pair of tongues 14, formed integrally with the hub 8, and securing the hub in rigid relation to the propeller member, as clearly disclosed in the drawings.

The part 8^a comprises a shaft of light material, preferably wood, and the same is preferably cylindrical from its upper end to or approximately to its lower end, for the sake of cheapness in manufacturing the device, it being understood that a number of these shafts can be provided by cutting a single stock of factory length of round or cylindrical material into appropriate lengths. In other words, instead of forming the upper end of the shaft 8^a square or otherwise non-cylindrical, it is much less expensive to form cylindrical rods of lengths varying from ten to twenty feet, by well known means and methods, and thereafter cutting such rods so as to form a large number of the pins or shafts 8^a which are but a few inches long. In order that the shafts 8^a may be fitted against turning in the hubs 8, the latter are preferably formed of springy sheet metal, such as steel or hard brass, and when the shafts 8^a are forced into these spring hubs or tubular elements 8, the latter exert a clamping pressure upon the shafts 8^a and prevent the latter from turning in the hubs under ordinary operations. However, the shafts 8^a may be withdrawn from the hubs 8 by the application of sufficient manual force, and this enables a number of the devices to be packed for shipment and storage in a comparatively small space.

Although the elements 8 and 8^a have been referred to as separate elements, they may properly be considered as uniting to form a shaft for the propeller blades 11, and moreover, the hub 8 alone may properly be considered a shaft, for in practice, the hub 8 could be somewhat longer, and the shaft 8^a could be dispensed with, although, for the sake of combining lightness and efficiency, it is preferable to construct the device as disclosed by the drawings. The lower end of the shaft 8^a may be pointed as disclosed at 15, so that this portion of the device will penetrate mud and soft earth and support the spinning portion of the device in its upright position, so that it may

be easily found by the operator after making a flight and descending therefrom.

One of the main novel and useful features of my invention consists in the formation of the handle member 9, the latter being preferably formed of a length of heavy wire and having a bifurcated end formed with eyes 16 and 17. The eye 17 is formed with a peripheral opening 18 which is sufficiently wide to permit the string 10 to be passed laterally therethrough from the dotted line position in Fig. 1 to the full line position, for a purpose which will presently appear.

The operation of the device is as follows: The operator first winds the string 10 upon the shaft 8^a, beginning adjacent the point 15 and discontinuing adjacent the hub 8, and he then passes the wound portion of the shaft through the eyes 17 and 16, which will bring the string 10 into the position shown in dotted lines, and it will be seen that the string may be quickly passed through the opening 18 and brought down into the full line position. Now, by holding the handle member 9 with one hand and pulling the string 10 with the other, the shaft $8—8^a$ is rotated, and this rotates with the propeller member 7, so that the latter rises and carries the shaft therewith.

It is recognized that devices have been patented prior to this invention which are operated by means of a string wound upon a shaft, but it appears that no prior inventor has avoided the necessity for passing the end of the string longitudinally through an opening in order to bring the working part of the string between two bearings for the shaft. It will be obvious that by passing the string laterally through the opening 18, the operation of bringing the working part between the bearings or eyes 16 and 17 is greatly facilitated and expedited, and that this feature renders the device operatable by very young children as well as by older ones.

Although I have described this embodiment of my invention very specifically, it is not intended to limit this invention to these exact details of construction, but I am entitled to make changes within the scope of the inventive ideas disclosed in the foregoing description and following claims.

What I claim is:—

1. In a flying toy, a plate having apertures therethrough at opposite sides of its central portion and comprising propeller blades extending outward from said central portion, and a member formed of a blank of sheet material and comprising spaced ears and a tubular rotary element, said ears being secured in the said apertures of said plate and holding said tubular rotary element with its axis at right angles to the length of the propeller blades.

2. In a flying toy, a plate having apertures therethrough at opposite sides of its central portion and comprising propeller blades extending outward from said central portion, a member formed of a blank of springy sheet material and comprising spaced ears and a tubular rotary element, said ears being secured in the said apertures of said plate and holding said tubular rotary element with its axis at right angles to the length of the propeller blades, and a rotary shaft having one end seated in said tubular rotary element and held by the spring action of the hub against rotation relative to the latter.

In testimony wherof I have hereunto set my hand.

MOSES LALONDE.