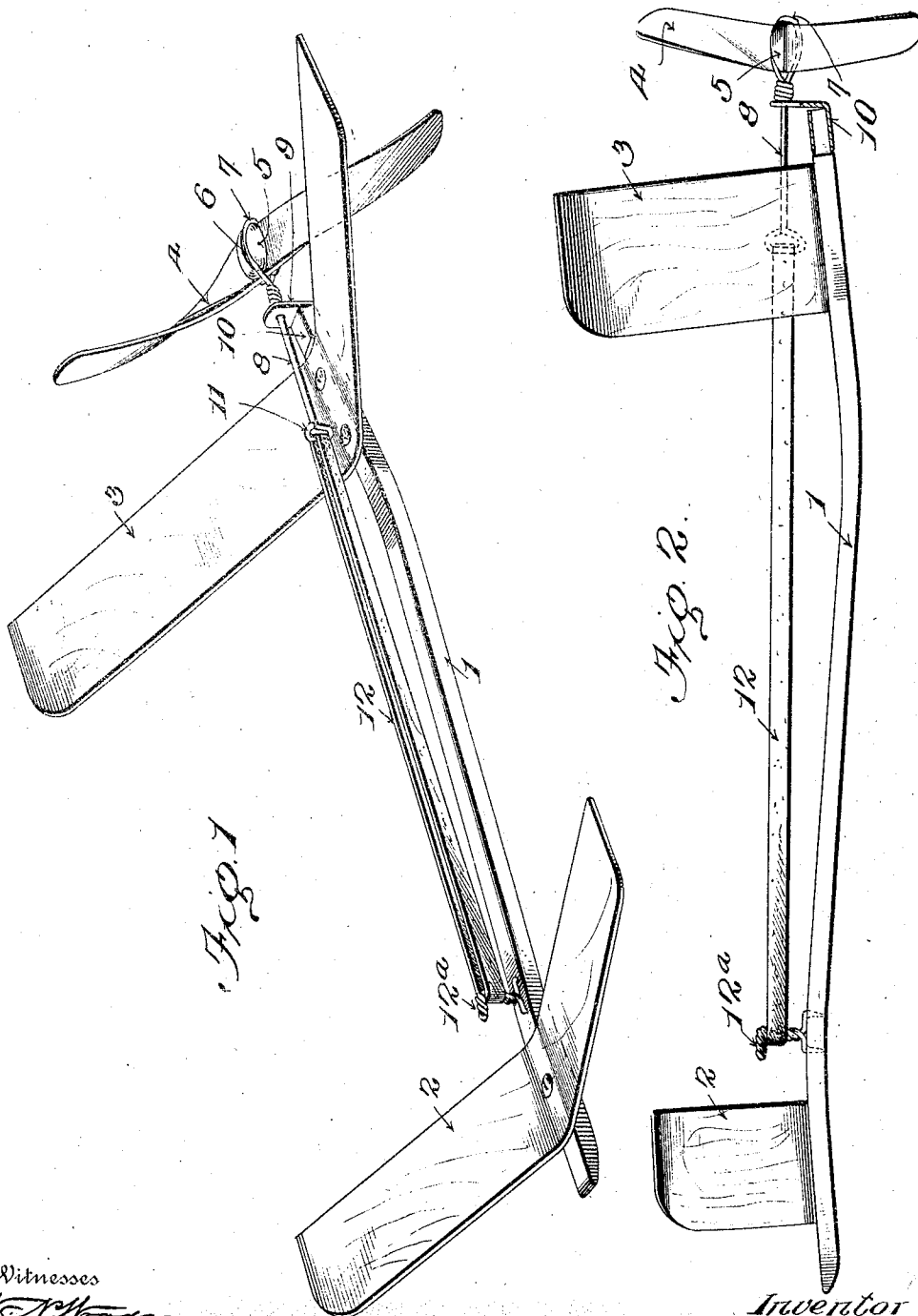


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TOY AEROPLANE.

APPLICATION FILED SEPT. 2, 1909

1,010,783.

Patented Dec. 5, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM MOONEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

TOY AEROPLANE.

1,010,733.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed September 2, 1909. Serial No. 515,379.

To all whom it may concern:

Be it known that I, WILLIAM MOONEY, citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Toy Aeroplanes, of which the following is a specification.

This invention comprehends certain new and useful improvements in aerial projectile toys, and has for its primary object, a simple inexpensive toy designed to simulate the actions of a flying machine of the monoplane type, and requiring just enough skill in its use to render it interesting, while at the same time capable of being operated by children as well as adults.

Another object of the invention is a device of this character which is composed of comparatively few parts that may be very easily manufactured and readily assembled, and which will be effective in operation for the desired results. And the invention also has for its object a toy of this character which may be set so that in its flight, it will turn to the left or to the right as desired.

With these and other objects in view, as will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings in which:

Figure 1 is a perspective view of a toy constructed in accordance with my invention; and, Fig. 2 is a side elevation thereof, one part being shown in section.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

My improved aeroplane toy comprises a main longitudinally extending brace or rib 1, and front and rear planes designated 2 and 3 respectively, said planes being secured at their middle to the rib 1 near the front and rear ends of the latter by screws or similar fastening devices, a single screw being used for the front plane 2 so that the latter is pivotally connected to the rib and may be shifted to assume different angular positions relatively to the rib for the purpose of causing the toy to fly either to the

right or to the left. The planes 2 and 3 are both upwardly bowed as clearly illustrated in the drawings, the rear plane being preferably somewhat larger in superficial area preferably in lateral extent than the front plane, the rear plane being intended primarily for balancing the device, while the front plane is intended for raising the device under the influence of the propelling power, in addition to its function of steering the toy.

To propel the toy, I provide a propeller 4 which in the present instance embodies two wings or planes as shown, said propeller embodying a middle thickened portion 5 which constitutes the hub, said portion being recessed or grooved as indicated at 6 to accommodate the looped ring 7 of a shaft 8. This shaft is preferably formed of wire coiled upon itself to form the loop 7 and which is journaled in the upwardly extending flange 9 which is formed on the rear end of a preferably metallic sleeve 10 slipped over the rear end of the rib 1. The forward end of said shaft 8 is looped upon itself to form an eye 11 in which a band 12 of rubber or the like is engaged, said band extending longitudinally as shown and being also held by a preferably wire hook 12^a which is secured in the rib 1 just back of the forward plane 2. Obviously the tension of the band 12 serves to hold the sleeve 10 on the rear end of the rib 1.

From the foregoing description in connection with the accompanying drawings, the operation of my improved toy will be apparent.

In the practical use of the device, the propeller 4 is twirled so as to exert a torsional tension upon the band 12 and while the band is thus under tension, the device is cast forwardly by the operator and will fly for a considerable distance according to the tension which has been imparted to the band, and the consequent power and duration of the rotation of the propeller 4.

It is to be particularly noted that the rib 1 is bent or curved near its rear end at an angle of about 2° or 3°, this formation materially assisting in the successful operation of the device.

Preferably, all of the parts except the shaft, the sleeve 10, the hook 12^a and the attaching screws are made of some light wood although any material or substance may be employed for any of the parts. It

is also to be understood that various changes may be made in the construction, arrangement and proportions of the parts without departing from the scope of the invention as defined in the appended claims.

Having thus described the invention, what is claimed as new is:

1. A toy aeroplane, comprising a main longitudinally curved rib, a laterally elongated front plane pivotally connected midway of its ends to the front of said rib whereby it may be set with one end in advance of the other, a rear laterally elongated plane connected midway of its ends to the rear of said rib, the rear plane extending laterally a greater distance on both sides than the front plane, both of said planes being upwardly bowed, a sleeve slipped upon the rear end of the rib and provided with an upwardly extending flange, a shaft journaled in said flange and formed with a loop and with an eye, a hook secured to the rib, a propeller provided with a hub portion accommodating the loop of the shaft, and a torsional band extending longitudinally as shown, said band being held in said eye and

in the hook, whereby to hold the sleeve on the rear end of the rib and to rotate the propeller when the band is placed under torsional strain.

2. A toy aeroplane, embodying a longitudinal rib, front and rear laterally extending planes connected to said rib, a sleeve adapted to be slipped over the rear end of said rib, a hook secured to the rib, the sleeve being provided with a flange, a propeller, a shaft to which the propeller is connected, said shaft being journaled in said flange and provided at its forward end with an eye, and a torsional contractile band connected to said eye and to the hook, whereby to effect the rotation of the propeller when placed under torsional strain, and to also serve to hold the sleeve on the rear end of the rib.

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

WILLIAM MOONEY. [L. s.]

Witnesses:

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