June 10, 1930. H. GILL ET AL 1,763,510

CHILD'S AEROPLANE SWING

Filed Nov. 5, 1928

Fig. 1.

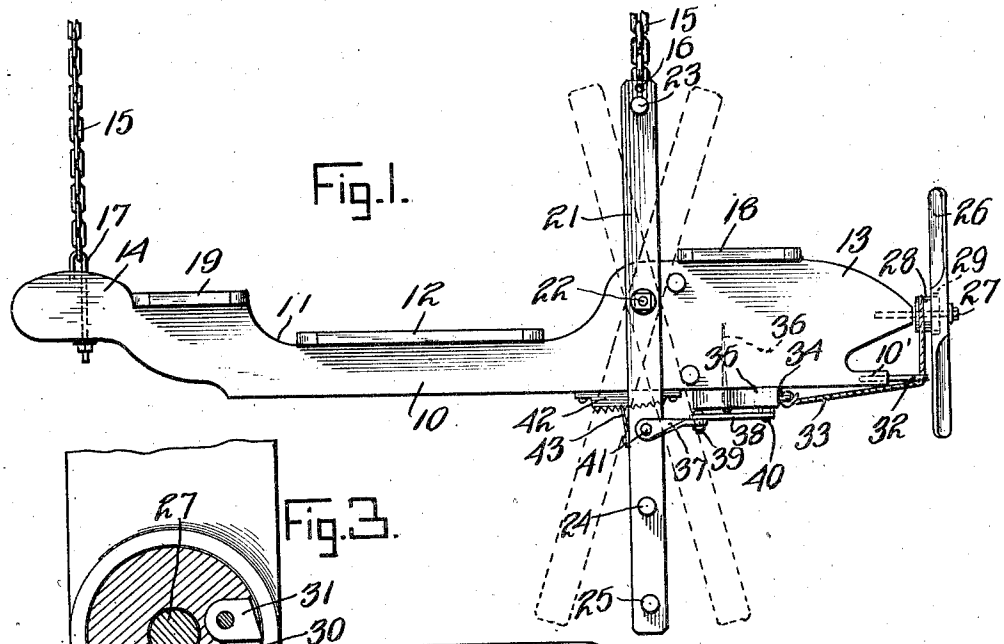
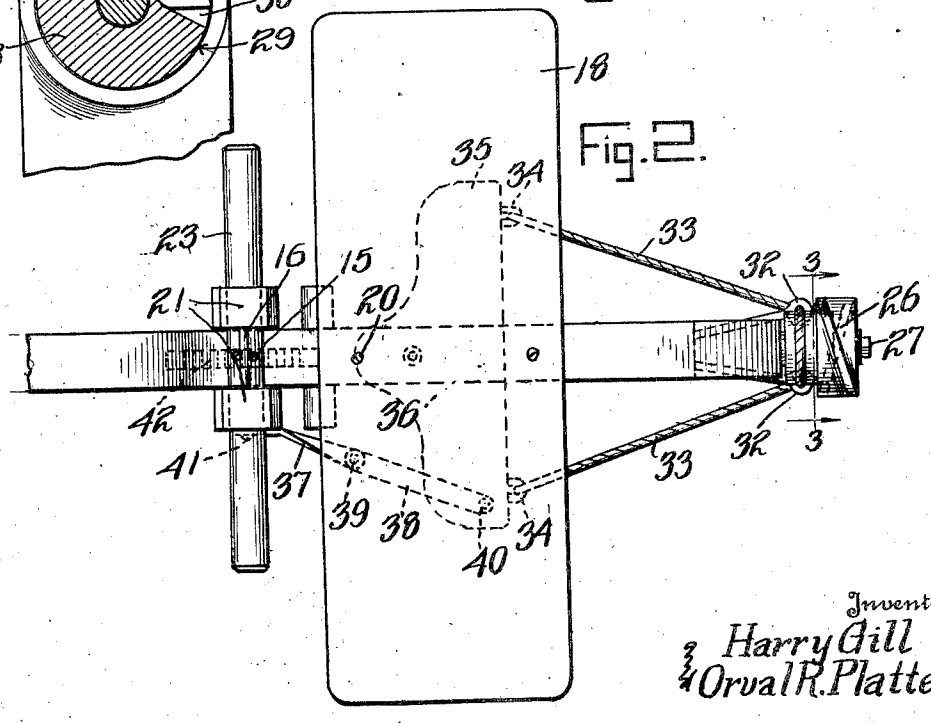


Fig. 3.

Fig. 2.



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UNITED STATES PATENT OFFICE

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CHILD'S AEROPLANE SWING

Application filed November 5, 1928. Serial No. 317,284.

Our invention relates to a child's aeroplane swing, and it is an object of the invention to provide a device of this character which simulates an aeroplane in appearance, having a rotatable propeller with means for operating the same, which device may be suspended from any suitable support, as for example a porch ceiling, tree or the like, all as will be hereinafter more specifically specified and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 is a side elevation illustrating one application of our invention,

Figure 2, an enlarged top plan view of the front end, and

Figure 3, a section on the line 3—3 of Fig. 2.

In the drawings reference character 10 indicates an elongated body having a substantially flat under surface and having its upper surface cut away at 11 to accommodate a child's seat 12, in order to locate the center of gravity below the point of suspension of the body 10. The body is provided with a nose portion 13 which tapers forwardly to a point, and a rounded tail portion 14, the body being supported by chains 15 secured at the front and rear to the body by means of a bolt 16 and an eye screw 17. The bolt 16 is carried in the upper end of the lever 21 in order to dispose the center of gravity below the point of suspension of the device, it being obvious that if desired in order to increase the distance of the center of gravity below the point of suspension a rigid attaching member (not shown) might be fixed at the front or rear of the body 10.

The lever 21 is pivoted on a pin 22 on the body 10, said lever being formed of a pair of spaced members disposed in parallel relation connected by means of pins 23, 24 and 25, the pins 23 forming handles to which the child may hold and the pins 24 and 25 forming foot rests, so that when the child is seated upon the seat 12 astride the body 10 he may exercise his legs and arms in oscillating the lever 21.

Across the forward portion of the body adjacent nose 13 is disposed a plane 18 and across the rear of the body at the tail is disposed a shorter member corresponding to the plane 18, said member giving the appearance of elevators on a conventional aeroplane and serving as a seat for a second child. The members 18 and 19 are formed of pieces of board which may be held in place by any suitable fastening means, as for example screws 20.

A propeller 26 is mounted at the forward end of the body 10 upon a shaft or pivot 27, and a pulley 28 is loosely mounted on said shaft or pivot 27 and is provided with ratchet means for engaging and rotating the propeller. At its rear side the propeller is provided with a circular depression 29 in which the pulley 28 is disposed, and the pulley is provided with a recess 30 in which is mounted a ratchet 31 adapted to engage the propeller and rotate it in one given direction as the pulley is oscillated. The lower forward portion of the body 10 has an extension 10′ for the reception of screw eyes 32 which form guides for an operating cable 33 which extends around and frictionally engages the pulley 28, said operating cable 33 having its extremities attached to a transversely pivoted rocker-bar 35 by means of staples or other fastening members 34. The transverse rocker-bar 35 is considerably shorter than the plane 18, and is held in engagement with the under side of the body 10 by means of a screw or other fastening element 36. When the rocker-bar 35 is oscillated or rocked to and fro on its pivot 36 the cable 33 will be drawn back and forth across the pulley 28 and will oscillate the pulley causing its ratchet 31 to engage the propeller and rotate the same continuously in one direction.

Means is provided for operating the rocker-bar 35 which comprises a toggle lever connection with the handle 21, said toggle lever comprising a pair of links or lever members 37 and 38 connected by means of a pivot 39 disposed in a substantially verti-

cal position to permit the levers to pivot in a horizontal plane. The front end of the lever 38 is attached in a horizontal position to one end of the rocker-bar 35 by a vertical pin 40, and the lever 37 is disposed also in a horizontal position but has its rear end twisted at right angles to its forward end and pivoted in a vertical plane upon a fastening element 41 on the handle 21 whereby the propelling operation may be accomplished.

In order to make a noise to represent a motor, a bar 42 having a serrated surface is secured in longitudinal position beneath the body 10 and a resilient metal finger 43 mounted on the handle 21 engages the serrations on the bar 42, so that when the handle is oscillated a noise will be produced.

It will be obvious to those skilled in the art that various changes may be made in our device without departing from the spirit of the invention, and we, therefore, do not limit ourselves to what is shown in the drawings and described in the specification, but only as set forth in the appended claims.

Having thus fully described our said invention, what we claim as new and desire to secure by Letters Patent, is:

1. An aeroplane swing comprising an elongated body, means for suspending the body from its ends, a handle, a rotary propeller, a pulley adjacent the propeller and having a ratchet therein adapted to engage the propeller, and a cable connecting said handle and said pulley whereby operation of the handle will rotate the propeller, substantially as set forth.

2. An areoplane swing comprising an elongated body, means for supporting the body at each end in a manner to permit it to swing, a handle pivoted in upright position on said body, a propeller rotatably mounted at the front end of the body, a pulley associated with the propeller for rotating the same, a member pivoted transversely on the body, a cable having its ends connected to the transverse member and extending around and frictionally engaging the pulley for oscillating the same when the transverse member is oscillated, and a lever and link connection between the transverse member and the handle whereby when the handle is oscillated the propeller will be rotated, substantially as set forth.

3. An aeroplane swing comprising an elongated body, means supporting said body from its extremities and permitting it to swing, a handle extending above and below said body and connected to the body by a transverse pivot, and projections carried by said handle at the upper and lower end, the lower projections forming foot rests and the upper projections forming handles, a rotary member, and a connection between the handle and rotary member for operating the rotary member when the handles are oscillated, substantially as set forth.

4. An aeroplane swing comprising an elongated body, means for supporting the body at each end in a manner to permit it to swing, a handle pivoted in upright position on said body, a propeller rotatably mounted at the front end of the body, a pulley associated with the propeller for rotating the same, a member pivoted transversely on the body, a cable having its ends connected to the transverse member and extending around and frictionally engaging the pulley for oscillating the same when the transverse member is oscillated, a lever and link connection between the transverse member and the handle whereby when the handle is oscillated the propeller will be rotated, and means for limiting the oscillatory movement of said handle, substantially as set forth.

5. A device of the class described comprising an elongated body cut out at its central portion to form a relatively narrow support for a seat, a transverse member extending across the front of the plane to simulate aeroplane wings, a handle pivoted in an upright position on the body, a rotatable member mounted on the body and a ratchet connection between the handle and the rotatable member for imparting continuous rotary movement to the rotary member upon the oscillatory movement of the handle, substantially as set forth.

In witness whereof, we have hereunto set our hands at North Vernon, Indiana, this 27th day of October, A. D. nineteen hundred and twenty-eight.

HARRY GILL.
ORVAL R. PLATTER.