June 12, 1956 W. M. HUTH 2,750,189

ARTICULATED TOY FOR AMUSEMENT

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FIG. 1

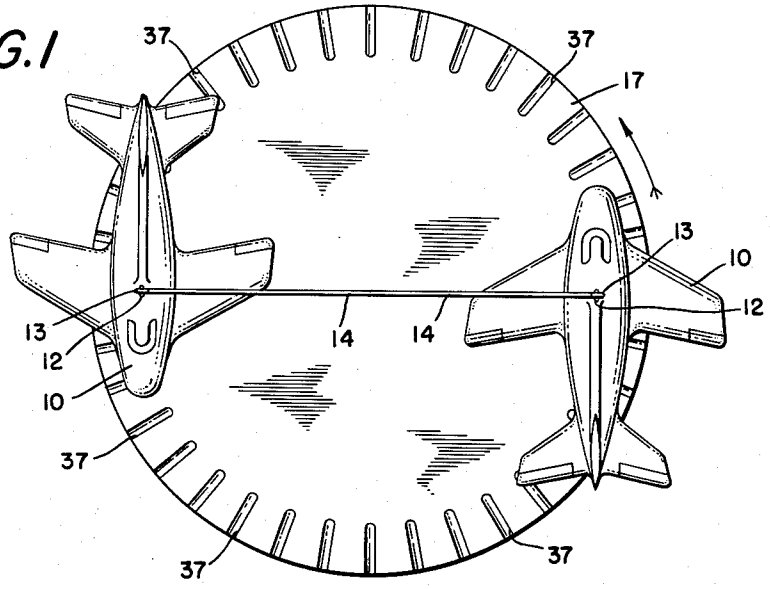
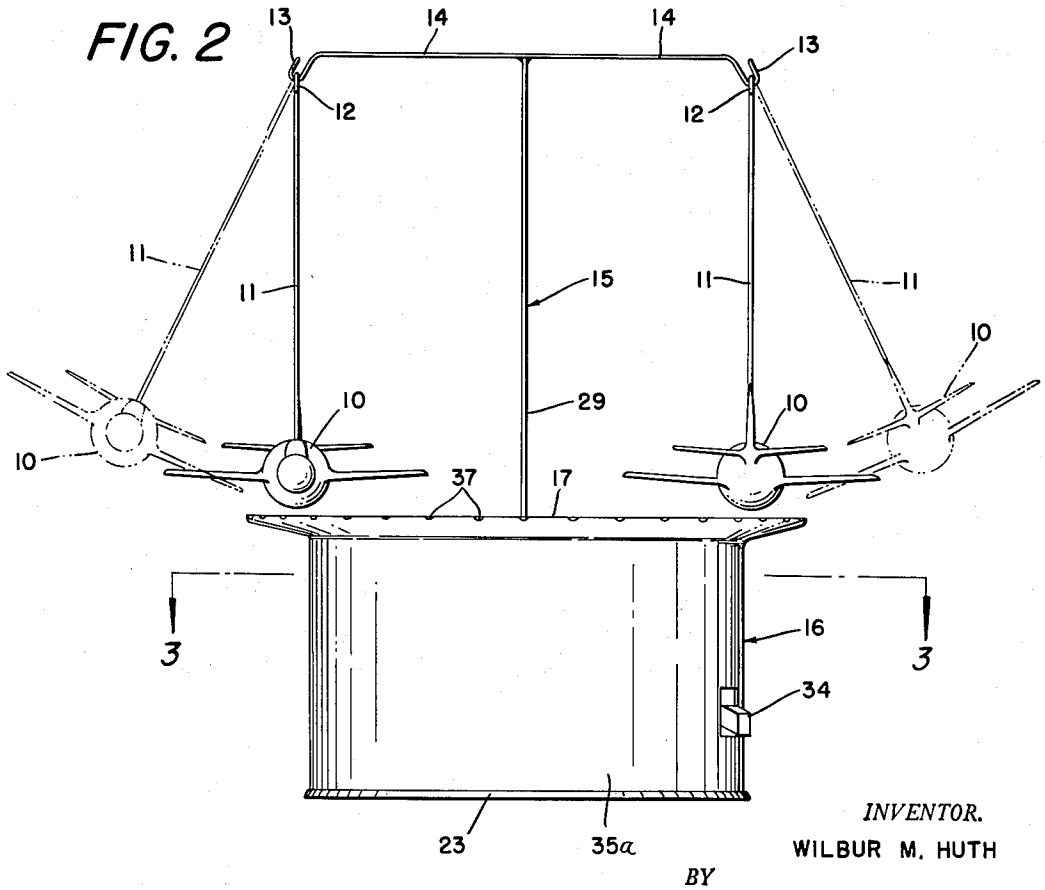


FIG. 2



INVENTOR.
WILBUR M. HUTH

BY

William C. Cleland

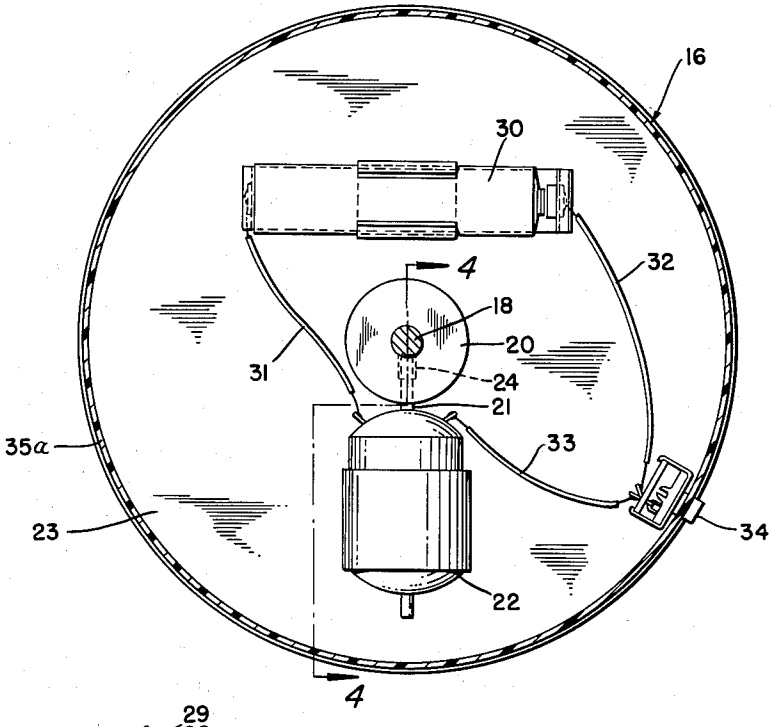
ATTORNEY

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ARTICULATED TOY FOR AMUSEMENT

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FIG. 3



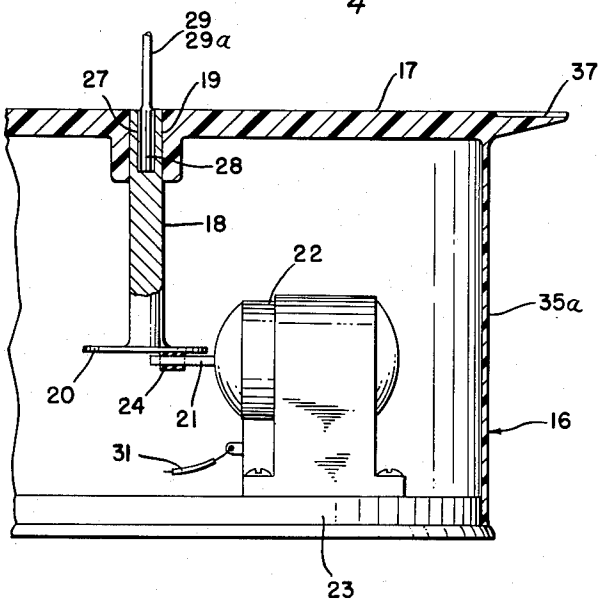


FIG. 4

INVENTOR.
WILBUR M. HUTH

BY

William Cleland
ATTORNEY

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FIG. 5

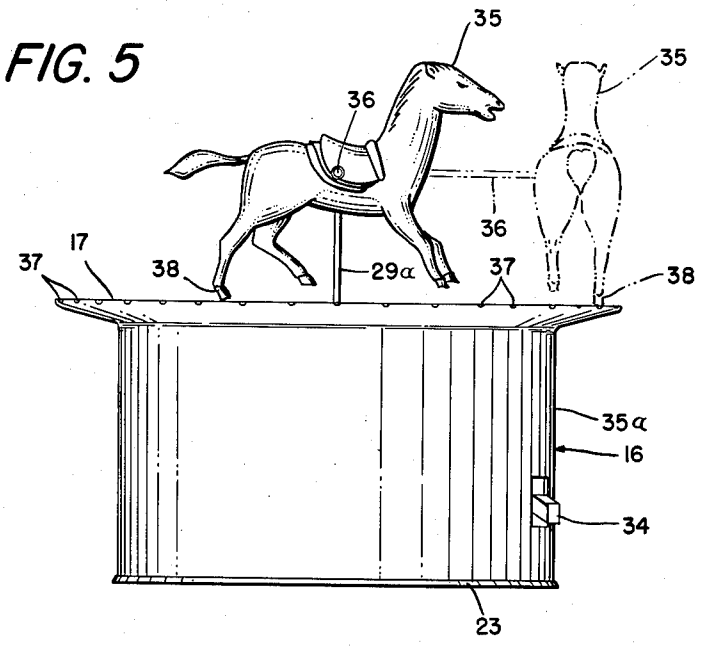
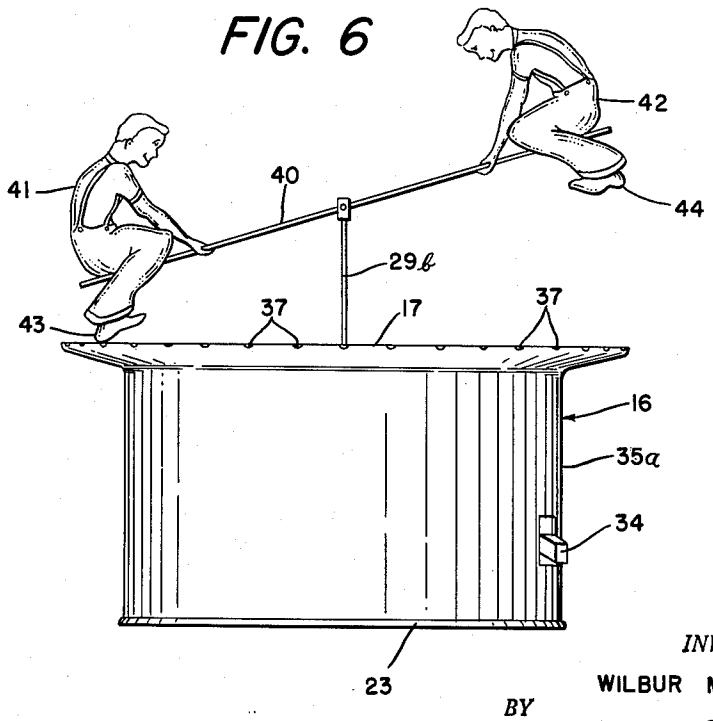


FIG. 6



INVENTOR.

WILBUR M. HUTH

BY

William Bleland

ATTORNEY

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ARTICULATED TOY FOR AMUSEMENT

Wilbur M. Huth, Akron, Ohio

Application May 21, 1953, Serial No. 356,578

8 Claims. (Cl. 272—31)

This invention relates to an articulated toy for amusement.

One object of the invention is to provide a toy of the character described wherein amusing objects may be variously moved in a circular path by means of a simple direct drive from a motor shaft to a rotary member on an axis at an angle to the axis of the motor shaft, without use of gears, and in a manner which is substantially self-adjusting to maintain requisite speed of the rotary member when the motor attains full power.

Other objects of the invention will be manifest from the following brief description and the accompanying drawings.

Of the accompanying drawings:

Figure 1 is a top plan view of a toy embodying the features of the invention.

Figure 2 is a front elevation thereof.

Figure 3 is an enlarged horizontal cross-section, partly broken away, taken on the line 3—3 of Figure 2.

Figure 4 is a vertical cross-section, on the same scale and partly broken away, taken substantially on the line 4—4 of Figure 3.

Figures 5 and 6 are views similar to Figure 2, illustrating modified uses of the toy.

Referring particularly to Figures 1 to 4, the numerals **10, 10** designate a pair of toy airplanes, pivotally attached to the lower ends of elongated wire elements **11, 11** having eyelets **12** at the upper ends thereof removably received on hooks **13**, at the outer ends of radial arms **14, 14** of a rotary member **15** supported on a casing **16** in a manner that the airplanes are elevated slightly above a platform **17** at the top of the casing. The rotary member **15** may include a post **18** (see Figures 3 and 4) having its upper end rotatably received through a bearing opening **19** in said platform **17** and having a relatively small disc **20** on its lower end gravitationally supported on a freely extending driven shaft **21** of a minature electric motor **22** mounted on a removable bottom wall **23** of casing **16**. The shaft **21**, which is of relatively small diameter compared with the diameter of disc **20**, may have a short length **24** of elastic tubing forcibly adjustable length wise thereon, to vary the point of driving contact with the disc **20**, and thereby providing means for adjusting the rotational speed of the rotary member **15**. Thus, as shown in Figures 3 and 4, the circumference of the tubing or sleeve **24** is substantially less than the circumference of the circular portion of the disc **20** frictionally engaged by said tubing or sleeve. In the upper end of post **18**, which is shown flush with the upper face of said platform, may be a socket **27** of irregular shaped cross-section, in which is removably and non-rotatably received a complemental lower end **28** an upward extension **29** of the post, said extension having the arms **14** affixed thereon.

The electric motor **22** may be powered by dry cell battery means **30** mounted on the base **23** of the casing **16** and connected to the motor by wires **31, 32** and **33**, through a manually operated switch **34** on the vertical casing wall **35***a*.

In use of the toy described above, as for amusement of children, it is operated by closing switch **34** to run the motor **22** in given direction, whereby rotation of shaft **21** is effective, through elastic sleeve **24** engaging the smooth underside of disc **20** at a selected point outwardly of the vertical axis of post **18**, to rotate the post at desired speed effective to swing the airplanes **10** in a circular path in counter-clockwise direction viewed in Figure 1, the speed of rotation being sufficient whereby centrifugal force will cause the airplanes to move outwardly from the vertical, as shown in chain-dotted lines in Figure 2. Due to the frictional contact between elastic sleeve **24** and disc **20**, maintained by weight of the rotary member **15**, there will be a certain amount of slippage which will prevent the motor **22** from operating the rotary member at undesirable or excessive speed.

The post extension **29** is removable from post **18** for selective replacement by different toy devices, such as is shown in Figure 5, wherein a toy horse or other animal **35** is pivotally attached to the outer end of a radial arm **36** integrally extending from a post extension **29***a* inserted in socket **27**, as shown in Figure 4. The top face of the platform **17** may have peripherally spaced grooves **37**, or it may be otherwise roughened along a circular path, and the toy animal **35** may be balanced or weighted on the arm **36** to have a hind foot **38** drag along said roughened surface as the shaft **18** is rotated as described, whereby the toy animal will bounce along said circular path with a clattering noise.

Figure 6 illustrates use of another form of replacement toy device, comprising an elongated rod **40** pivoted at its longitudinal center to the upper end of a post extension **29***b*, which is mounted in the socket **27** of post **18** as before. The pivoted rod **40** simulates a see-saw, and for that purpose toy figures **41** and **42** are mounted in substantially balanced relation on the opposite outer ends thereof. The arrangement is such that as the post **18** and extension **29***b* thereof are rotated, downwardly presented feet **43** and **44** of the toy figures will intermittently engage the roughened surface portions **37** of platform **17**, and thereby cause the rod **40** to see-saw on its central pivot.

Modifications of the invention may be resorted to without departing from the spirit thereof or the scope of the appended claims.

What is claimed is:

1. An animated toy comprising at least one object to be animated, a relatively fixed support having an upwardly presented member having a guide passage therethrough, a motor relatively fixed on said support and having a driven shaft extending in horizontal direction therefrom, a post received through said guide passage to rotate about a vertical axis thereof, said post having an enlargement non-rotatably affixed on its lower end and provided with a substantially flat, downwardly presented circular surface portion of substantial area concentric with the axis of said post, said driven shaft having an annular portion terminating radially outwardly of the center of said circular surface, said shaft through said annular portion thereby gravitationally supporting said post, said driven shaft through frictional engagement of said annular portion thereof with said circular surface of the enlargement being adapted to rotate said post about its axis, the circumference of said annular portion being substantially less than the circumference of said circular surface portion, said post having an extension upwardly of said member to be rotatable with the post, means on said post extension for supporting at least one said object to rotate with the post, the frictionally engaging surfaces of said annular portion and circular surface being such

as to permit a certain degree of slippage, whereby said object is swung about said vertical axis with substantially unpredictable irregular movement.

2. An animated toy as set forth in claim 1, said annular portion of said shaft including thereon a piece of elastic tubing.

3. An animated toy as set forth in claim 1, said extension having at the upper end thereof radially outwardly extending arms at the outer ends of which said objects are supported to swing in a circumferential path.

4. An animated toy as set forth in claim 1, said extension having at the upper end thereof radially outwardly extending arms at the outer ends of which said objects are supported to swing in a circumferential path, said objects being pivotally supported on said arms to swing relatively of the same.

5. An animated toy as set forth in claim 1, said extension having at the upper end thereof radially outwardly extending arms at the outer ends of which said objects are supported to swing in a circumferential path, said member being a horizontal platform having upwardly presented, peripherally spaced raised portions, said objects being mounted on said arms to pivot thereon in

vertical direction and having portions adapted to trail over said raised portions as they are swung with said post extension, and thereby to produce a rattle.

6. An animated toy as set forth in claim 1, said post extension being removably attached to said post.

7. An animated toy as set forth in claim 1, said post having a socket at the upper end thereof and opening above said platform, said extension having its lower end relatively non-rotatably received in said socket.

8. An animated toy as set forth in claim 1, said annular portion being adjustable along said shaft to adjust the speed of rotation of said post.

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