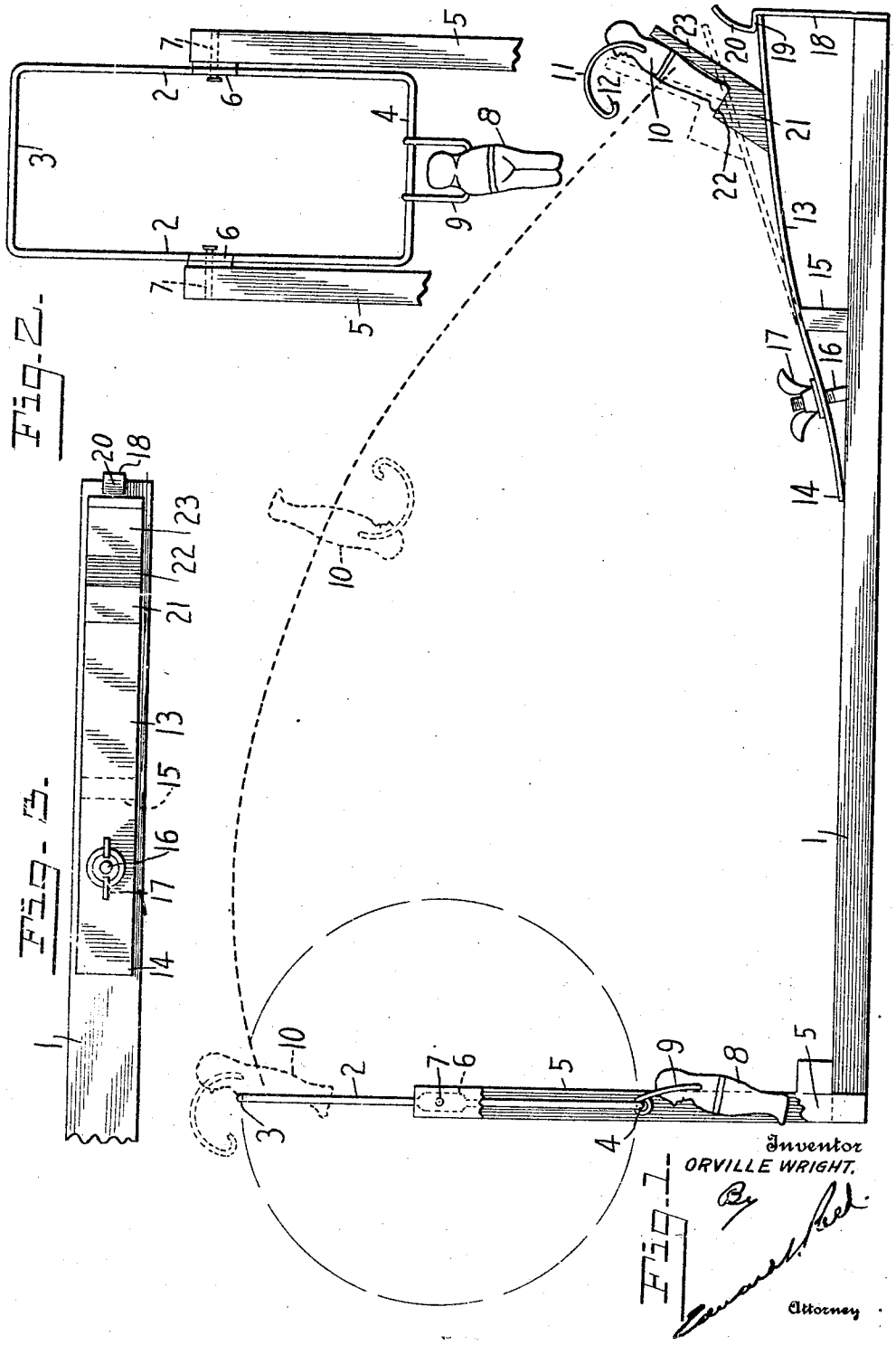
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O. WRIGHT

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TOY.

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To all whom it may concern:

Be it known that I, ORVILLE WRIGHT, a citizen of the United States, residing at Oakwood, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Toys, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to toys and more particularly to that type of toy in which an object, such as a doll, is projected through the air and caused to engage and to be supported by a swinging bar, or other suitable supporting structure.

One object of the invention is to provide a toy of this kind with a projecting device which will accurately project the object through a considerable distance into engagement with the bar.

A further object of the invention is to provide such a toy with a projecting device which can be adjusted to control the movement imparted to the object.

A further object of the invention is to provide such a toy with a projecting device which will cause the object to turn in the air before it engages the bar.

A further object of the invention is to provide such a toy with a projecting device which will cause the object to engage the bar in such a manner as to impart a strong swinging movement thereto.

Other objects of the invention will appear as the device is described in detail.

In the accompanying drawings Fig. 1 is a side elevation, partly broken away, of a toy embodying my invention; Fig. 2 is an elevation of the revolving frame; and Fig. 3 is a plan view of the projecting device.

In these drawings I have illustrated one embodiment of my invention but it will be understood that this particular embodiment has been chosen for the purpose of illustration only and that the device may take various forms without departing from the spirit of the invention.

In that form here shown the toy comprises a base 1 which is preferably in the form of an elongated bar adapted to rest upon a table or other suitable support. Mounted near one end of this base, and above the same, is a bar, or other suitable supporting structure, adapted to be engaged by and to support an object projected toward the same. In the present construction this bar forms a part of a revoluble frame 2 which is rectangular in form and has at its ends cross bars 3 and 4. The frame is pivotally mounted between its ends so as to be substantially balanced and freely revoluble about its axis. Preferably it is mounted between two upright standards 5 which may be rigidly secured to the forward end of the base 1 in any suitable manner. As here shown the parallel side bars of the frame 2 are flattened, as shown at 6, and provided with bearing openings adapted to receive pivot pins 7 carried by and projected inwardly from the respective standards 5. Preferably one end of the frame is counterweighted and, as here shown, the counterweight is in the form of a wooden figure or doll 8 having arms 9 of wire which engage the cross bar 4 and pivotally support the figure thereon. It will be understood, however, that this counterweight may take any suitable form. When the frame is in its normal or idle position the counterweight will maintain the same in an upright position, as shown in Figs. 1 and 2, with the cross bar 3 at the top.

The object which is to be projected into engagement with the cross bar 3 may take any suitable form and may be of any suitable material but is preferably in the form of a doll, as shown at 10, and is provided with curved arms 11 extending upwardly and forwardly from the shoulders thereof and having at their outer ends hook shaped portions 12. The projecting device is preferably mounted on the base 1 and is spaced a considerable distance from the frame 2. This projecting device may take various forms and may be mounted and controlled in various ways but, as here shown, it comprises a flat resilient bar 13 which may be of thin hard wood or of other suitable material and which is supported at its forward end on the base, as shown at 14, and is supported at a point a short distance in the rear of its forward end by a bracket or fulcrum block 15, that portion of the bar lying in the rear of the fulcrum block being unsupported and free to move within the limits of the resiliency of the material. The spring or resilient bar 13 is secured in position on the base by means of a bolt 16 extending through the base and through the

bar at a point substantially midway between the point of support 14 and 15. A thumb nut 17 mounted on the bolt 16 above the resilient bar or spring serves not only to secure the spring in position on the base but also to adjust the pressure thereon in such a manner as to regulate the tension of the spring and consequently to control the movement imparted thereby to the object which is to be projected. This form of connection also permits of the transverse adjustment of the spring to properly aline the same with the bar 3. This manner of adjustment enables the tension of the spring to be initially adjusted and to be maintained at the proper tension under all conditions. A suitable detent is provided for retaining the rear or free end of the spring in its depressed position, that is, under tension. This detent is shown at 18 as mounted at the end of the base 1 and as having a shoulder 19 to engage over the end portion of the spring 13 and as having a finger piece 20 by means of which the shoulder may be moved out of engagement with the spring to release the latter. The spring carries a suitable seat adapted to support the object 10 which is to be projected. This seat may be of any suitable character and its character will depend more or less upon the particular shape and character of the object which is to be projected but it is preferably of such a character that it will support the object on both sides of the center of gravity, and give a greater velocity to one end of the object than to the other, thus causing the object to rotate about its center of gravity. As here shown, the seat is in the form of a block 21 having an offset portion or shoulder 22, on which one end of the object rests, and having an upwardly extending portion or back 23 to engage the upper portion of the object. This block or seat is so mounted on the spring 13 that the upper surface thereof will extend at an acute angle to a horizontal plane and the back 23 will be tilted rearwardly, and when the spring is depressed, as shown in full lines in Fig. 1, the seat will extend at a still more acute angle to a horizontal plane. When placed on the seat the lower end of the doll will rest upon the upper surface thereof and the upper portion of the doll will engage the back of the seat near the top thereof, and because of the inclined position of the seat the center of gravity of the seat will be between the two points of support. This arrangement is such that the action of the spring when released will project the doll toward the bar 3 of the revoluble frame 2, and will moreover cause the doll to turn a partial or a complete somersault in the air before it engages the bar. The movement imparted to the object by the spring is controlled by the adjusting device and when the proper adjustment is made the object will be projected accurately into engagement with the swinging bar upon each operation of the device. It is preferable that the body of the object shall strike the swinging bar before the arms 11 engage the latter as in this manner more force is applied to the swinging frame and it will make a greater number of revolutions. Preferably the adjustment is such that the portion of the body of the object just above the center thereof will strike the bar, thus imparting movement to the bar, and will then move under the bar to permit the hook shaped arms to engage the latter and support the object thereon. The object which is projected is of approximately the same weight as the object or counterweight which is permanently mounted on the revoluble frame and consequently when both objects are on the frame the latter is balanced and will rotate freely.

While I have shown and described one embodiment of my invention I wish it to be understood that I do not desire to be limited to the details thereof as various modifications may appear to a person skilled in the art.

Having now fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a device of the character described, a base, a bar supported above said base near one end thereof, an object having a part to engage said bar and support said object therefrom, a flat spring mounted on and extending lengthwise of said base and having one end free, a seat carried by the free end portion of said spring to support said object thereon, said seat comprising a part extending at an acute angle to the horizontal and adapted to engage the rear side of the object and support the same in an inclined position, and a part extending forwardly from the first mentioned part and forming a support for the lower end of the object.

2. In a device of the character described, a revoluble frame having a transverse bar, a counterweight connected with said frame on that side of its axis opposite said bar, an object having an arm adapted to engage said bar and support said object thereon, a device mounted at a point remote from said frame to project said object toward said bar, and having means to cause said object to make a complete turn in the air before it engages said bar.

3. In a device of the character described, a revoluble frame having a transverse bar, a counterweight connected with said frame on that side of its axis opposite said bar, an object having an arm adapted to engage said bar and support said object thereon, a flat spring mounted at a point remote from said bar and having means for sup-

porting said object in a rearwardly inclined position.

4. In a device of the character described, a revoluble frame having a transverse bar, a counterweight connected with said frame on that side of its axis opposite said bar, an object having an arm adapted to engage said bar and support said object thereon, a flat spring mounted at a point remote from said bar and having means for supporting said object in a rearwardly inclined position, and a detent arranged to engage said spring and hold the same in a depressed position.

5. In a device of the character described, a revoluble frame having a transverse bar, a counterweight connected with said frame on that side of its axis and opposite said bar, an object having an arm adapted to engage said bar and support said object thereon, a flat spring supported at that end adjacent to said bar and having its other end portion free to move, a supporting member carried by the free end portion of said spring and arranged in an acute angle to said spring and comprising a part on which one end of said object rests, and a part to engage the rear side of said object above the center thereof.

6. In a device of the character described, a base, a pair of standards mounted at one end of said base, a frame revolubly mounted between said standards and having transverse bars at the ends thereof, a counterweight pivotally supported on one of said bars, an elongated object of substantially the same weight as said counterweight, and having upwardly and forwardly curved arms to engage the other of said bars and support said object therefrom, a flat spring mounted on said base at a point spaced to the rear of said standards and having its rear portion free to move, and a seat carried by said spring to support said object in an inclined position.

7. In a device of the character described, a base, a pair of standards mounted at one end of said base, a frame revolubly mounted between said standards and having transverse bars at the ends thereof, a counterweight pivotally supported on one of said bars, an elongated object of substantially the same weight as said counterweight, and having upwardly and forwardly curved arms to engage the other of said bars and support said object therefrom, a flat spring mounted on said base at a point spaced to the rear of said standards and having its rear portion free to move, a seat carried by said spring to support said object in an inclined position, and a detent for holding the free end of said spring in its depressed position.

8. In a device of the character described, a base, a pair of standards mounted at one end of said base, a frame revolubly mounted between said standards and having transverse bars at the ends thereof, a counterweight pivotally supported on one of said bars, an elongated object of substantially the same weight as said counterweight, and having upwardly and forwardly curved arms to engage the other of said bars and support said object therefrom, a flat spring having its forward end supported on said base at a point spaced to the rear of said standards, a fulcrum block mounted on said base and engaging said spring at a point in the rear of the forward end thereof but spaced a considerable distance from the rear end thereof, a bolt mounted in said base extending through said spring at a point between its forward end and said fulcrum block, a nut mounted on said bolt above said spring, and a seat carried by the rear portion of said spring to support said object thereon in an inclined position.

In testimony whereof, I affix my signature hereto.

ORVILLE WRIGHT.