

Nov. 26, 1935.

A. STERN

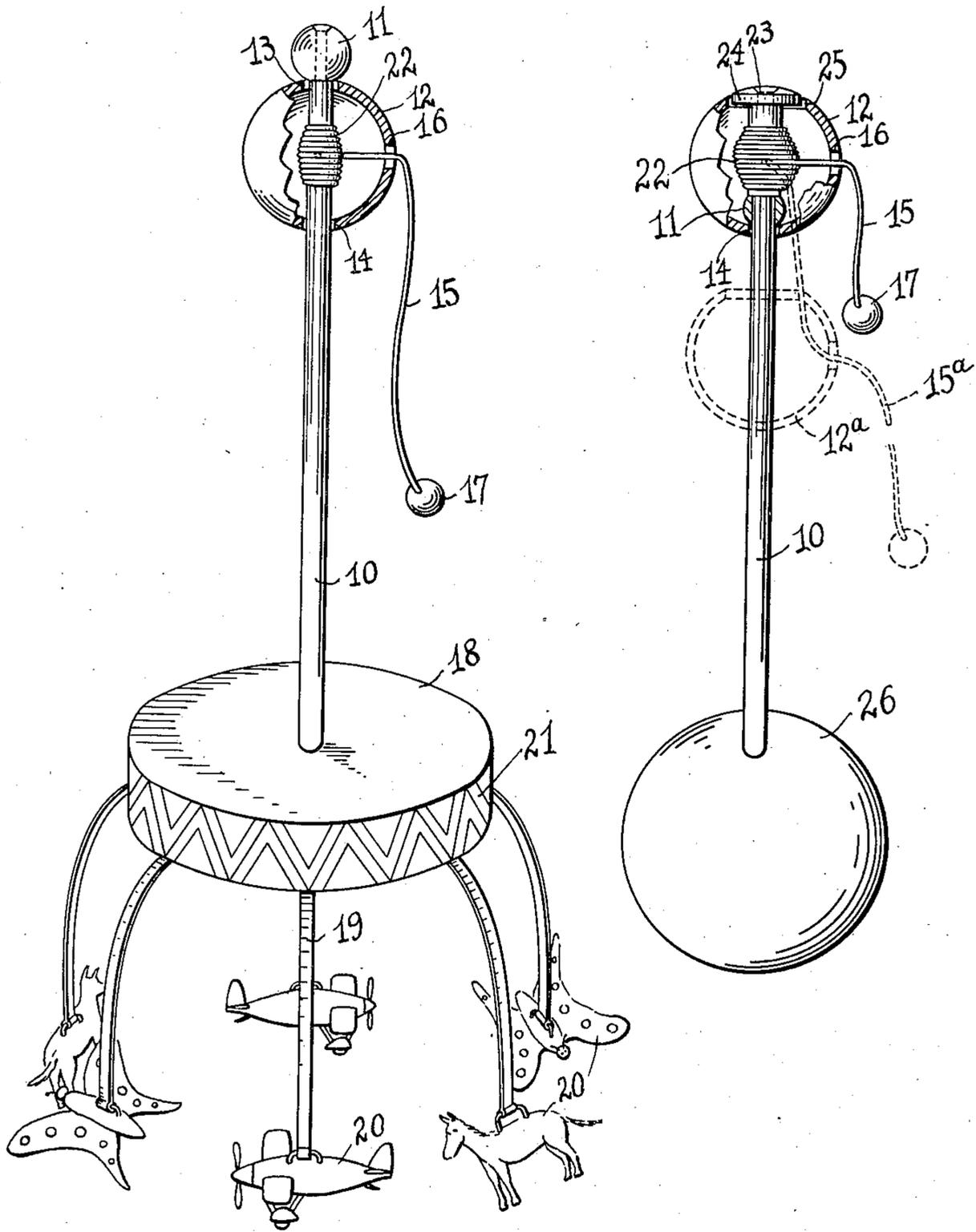
2,022,390

ROTATING TOY

Filed Nov. 12, 1934

Fig. 1.

Fig. 2.



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# UNITED STATES PATENT OFFICE

2,022,390

## ROTATING TOY

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Application November 12, 1934, Serial No. 752,596

2 Claims. (Cl. 46—59)

This invention relates to rotating or whirling toys operated by a cord with various speeds and in alternate directions, and has for its main object to provide a toy of this character of a novel design and effect.

Another object of this invention is to provide a rotating toy of the type described which will be extremely simple in construction, inexpensive to manufacture, easy and interesting to operate, and attractive in appearance.

Still a further important object of my invention is to provide a rotating toy of the type characterized hereinbefore which will carry down-hanging ornaments, secondary or supplementary toys, and other devices which will play when the amount or the direction of the speed of the original toy is changed.

Other objects of this invention will be apparent as the specification of the same proceeds.

In the drawing forming a part of this specification and accompanying the same:—

Fig. 1 is a semi-diagrammatical perspective view of one embodiment of my device, portions of the same being broken away for the sake of clearness in showing;

Fig. 2 is a view of another embodiment of my toy, the execution and character of the view being similar to that shown in Fig. 1, and portions of the device, when the same is exposed for inspection, being shown in an imaginary manner in dotted lines.

Referring now to the drawing more closely by characters of reference, the numerals 10 indicates a rotating rod, pin or shaft made of any appropriate material, preferably of metal. In the embodiment shown in Fig. 1 said shaft 10 is terminated in a small ball or globe 11 by which it rests on a hollow sphere 12, passing through the same in an upper hole 13 and in a lower hole 14. A cord 15 is secured to the shaft 10 at a point thereof normally within the hollow sphere 12, said cord passing to the outside of the hollow sphere through the opening 16 and being ended in an appropriate device, as in the ball or globe 17, to prevent its end from slipping into the hollow sphere 12.

A comparatively heavy disk-shaped weight 18 is secured to the lower end of the shaft 10 and on any appropriate yielding means secured to the disk 18, as on the curved spring strips or arms 19, are carried various secondary or supplementary toys and devices 20, said devices being in the form of animals, airplanes, boats and butterflies with swinging wings, as shown, but they may, of course, be of other styles, like bells, etc., the pur-

pose and effect of which, in co-operation with the rotating of the shaft 10, will be more fully explained hereinafter. Disk 18 also may have various designs and ornaments 21 painted thereon.

The operation of my toy is as follows:

The hollow globe 12 is held in one hand of the player, whereupon shaft 10 is rotated to wind up the cord 15 on the appropriate portion thereof, as indicated by 22 in Fig. 1. A quick pull or jerk is now given to the cord 15, the other hand of the player grasping the ball 17, whereupon the shaft 10 and the disk 18 secured thereon will be set into a quick rotary motion in a certain direction, and when the cord 15 is pulled almost entirely free of and off of the shaft 10 it will be quickly relaxed and loosened so that the rotation of the shaft 10 will wind it up thereon in the opposite direction, whereupon the play described hereinbefore may again begin, and so it may go on indefinitely by alternate quick jerks or pulls and loosening of the cord 15.

When the shaft 10 and the weight 18 are thus put into quick and changing rotation in alternate directions, the toys 20, down-hanging therefrom, will alternately rise and drop, which will give an amusing and novel carousel effect to the device, and at the same time the movable parts of the toys 20, like the propellers on the airplanes, the wings on the birds, or the hammer of a bell, etc., will be set into motion in various directions. Dancing toys may, in a similar manner, be placed on the disk 18 and the ornaments 21 thereon may be of various colors and may aid in the attractive and amusing effects of the rotating of the toy.

In the embodiment shown in Fig. 2, shaft 10 has a supporting ball 11 secured below the top end of the shaft and within the hollow sphere 12, so that the shaft is supported and rests on the inside surface of the hollow sphere, as shown. The top end 23 of the shaft may be placed within the hollow sphere 12, but I prefer to form it in such a manner as to complete the globe of the hollow sphere 12 and for this purpose I secure a disk 24 at said end which may be rotatable in an opening 25 in the wall of the hollow sphere 12. The shaft passes out of the hollow sphere at the bottom thereof through an opening 14. A cord 15 is secured to the shaft in a similar manner described hereinbefore, passing from the inside of the hollow sphere to the outside thereof through a hole 16 and being secured against slipping into the hollow sphere by a ball 17. The operation of this modification of my device is entirely simi-

lar to the earlier one, the only difference being that a globular weight 26 is shown here as secured to the lower end of the shaft instead of the disk 13, shown and described in connection with the earlier embodiment of my device.

The advantages of the embodiment shown in Fig. 2 over that shown in Fig. 1 are, that the support of the shaft is entirely hidden within the hollow sphere 12, giving my device a more interesting, novel and puzzling appearance, and that the hollow sphere 12 may be pushed downwardly along the shaft 10 into its position 12a shown by the dotted lines, this way entirely freeing and exposing the top end of the shaft 13 with its devices and with the respective portions of the cord 15, as indicated, by dotted lines, at 15a.

Of course, the disk 24 may be entirely omitted and the hole 25 in the hollow sphere 12 made smaller accordingly, encircling the top end of the shaft itself, but in any case, I prefer to make said opening 25 larger in diameter than that of the ball 11 so that the hollow sphere 12 may be pulled downwardly over said ball 11.

It is also understood that instead of the ball 11 a narrow shoulder may be formed on the shaft 10 for the same purpose as said ball has been provided in the embodiment shown in Figs. 1 and 2.

In Fig. 1 of the drawing, it will be noted that the ends of the spring arms 19 are rolled to provide sleeve bearings for loosely receiving cross pins of staples fast with the toy devices or emblems 20.

It will be understood that changes and variations may be made in the parts and combinations of my device and I hereby reserve all my rights

to any and all such changes as are within the spirit of the invention and the scope of the appended claims.

What I claim as new, is:

1. A toy comprising a globular shell having opposite bearings in the wall thereof; a power driven shaft extending through said bearings; a rotary weight on the lower end of said shaft; downwardly and outwardly curved spring arms on said weight; circumferentially disposed bearings on the lower extremities of said arms and toy emblems pivoted in said bearings of the said arms for permitting swinging movements in diametrical planes relative to said weight and toward and away from the same when the arms are sprung outwardly by centrifugal force as the shaft and weight are rotated, and means for imparting high speed rotary action in alternate opposite directions to the shaft and weight.

2. A toy comprising a shaft; a globular handle loosely arranged at the upper end of the shaft; a stop device fixed to the end of the shaft and limiting the upward movement of the handle; a cord attached at one end to said shaft and passing outwardly through a hole in said loose globular handle; a disk-weight secured to the bottom of said shaft; spring arms curved outwardly and downwardly from said weight and fast therewith; bearings formed laterally of the ends of said arms; and toy figures each having means for pivotal connection with a respective arm for diametrically swinging movements in the rotary operation of the toy produced by pulling and slackening said cord at intervals.

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