Feb. 26, 1946. J. HOJNOWSKI 2,395,549

TOY

Filed April 6, 1945

FIG. 1.

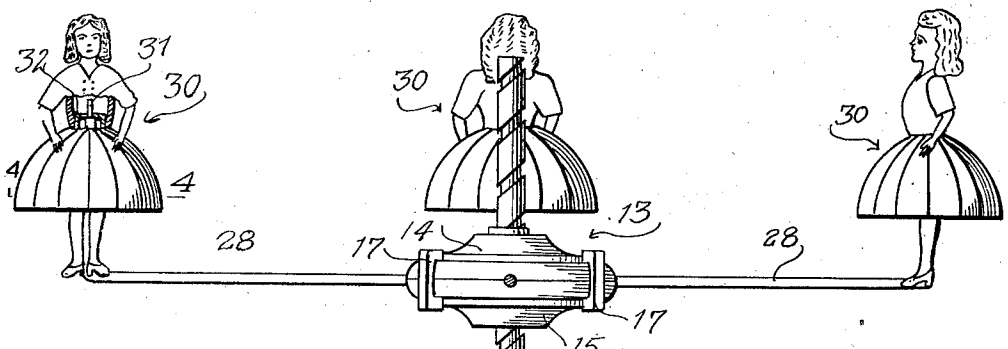


FIG. 2.

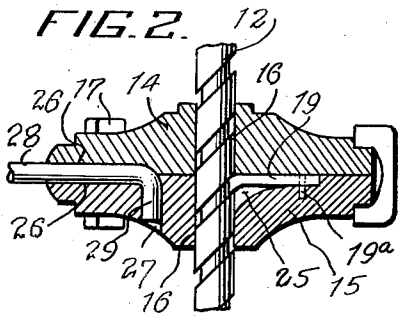


FIG. 3.

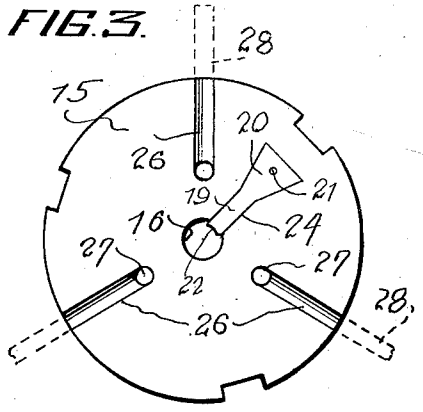


FIG. 4.

FIG. 5.

FIG. 6.

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TOY

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3 Claims. (Cl. 272—31)

This invention relates to certain new and useful improvements in toys.

The primary object of the invention is to provide a toy of the general roundabout type wherein toy figures are rotatably mounted on the outer ends of a radial arm carried by a vertical standard with the arm gravitationally descending on the standard.

A further object of the invention is to provide a toy of the foregoing character wherein a spirally grooved vertical standard carries a block member having keyed engagement in the groove of the standard to effect rotational descent thereon with figure toys carried by the block member and independently rotatable of the block member during descent of the latter on the standard.

It is a further object of the invention to provide a toy of the foregoing character with a block member rotatably supported upon a vertical standard and a novel form of key connection between said block member and the spiral groove in the vertical standard to effect rotation of the block member during gravitational descent thereof on the standard.

With the above and other objects in view that will become apparent as the nature of the invention is better understood, the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing, and claimed.

In the accompanying drawing:

Figure 1 is a side elevational view, partly in section, of a toy constructed in accordance with the present invention and illustrating a block member having keyed contact with the spirally grooved vertical standard and with figure toys mounted at the outer ends of arms carried by the block member,

Figure 2 is a vertical cross-sectional view of the block member showing the two-part construction thereof, the means for securing the sections together and the key connection with the spirally grooved standard,

Figure 3 is a top plan view of the bottom section of the block member showing the mounting of the key therein, with the radial arms supporting the figure toys illustrated by dotted lines,

Figure 4 is a detail sectional view taken on line 4—4 of Figure 1, showing the vane construction of standard of the figure toy,

Figure 5 is a top plan view of the key for connecting the block member to the spirally grooved standard, and,

Figure 6 is a side edge elevational view of the key.

In the accompanying drawing, the completed toy is illustrated in Figure 1 and comprises a base member 10 from which radiates combination legs and feet 11 and from which base member rises a vertical spirally grooved shaft 12.

An object of the invention is to mount a block member upon the spirally grooved shaft in keyed relation therewith and having arms radiating from the block member with figure toys rotatably mounted at the outer ends of the arms so that upon gravitational rotative descent of the block member the figure toy supporting arms are swung in a circular path, while the figure toys at the outer end of the arms independently rotate. The block member that is designated in general by the reference character 13 includes upper and lower sections 14 and 15 of generally disk or circular formation and said sections 14 and 15 have alined axial openings 16 therein for free mounting upon the vertical shaft 12. The sections 14 and 15 of the block member are maintained in assembled relation by means of a series of U-shaped clips or clamps 17 that are adapted for reception in mating edge notches 18 in the sections 14 and 15 as illustrated.

The keyed connection between the block member 13 and the spirally grooved shaft 12 is shown more clearly in Figures 2, 3, 5, and 6, the key, as shown in Figures 5 and 6, comprising a finger portion 19 with a substantially wedge-shaped or triangular head 20 at one end thereof with an anchor pin receiving opening 21 in said head. The other terminal end of the finger is inwardly arched as at 22 and one side of said finger adjacent the notched edge is bent downwardly as at 23 that presents the configuration of the end portions 22 and 23 of the key finger 19 complemental to the groove in the spirally grooved shaft 12. The upper face of the lower section 15 has a depression 24 therein extending from the axial opening 16 toward the periphery of said section and of a shape to receive finger 19 and head 20 of the key that is retained by the pin 19a passing through the opening 21, and said section 15 is further cut-away as at 25 to permit limited flexibility of the working end 22 and 23 of the finger 19, this arrangement being illustrated in Figure 2.

The opposed faces of the sections 14 and 15 of the block member 13 are radially grooved from the peripheral edges inwardly to a point spaced from the axial openings 16 as indicated by the reference character 26 and the inner ends of said grooves communicate with openings 27 extending downwardly through the lower section 15. Any number of these radial groove forma-

tions may be provided, three being shown in Figure 3. Figure toy supporting arms or rods 28 have their inner ends seated in the mating grooves 26 with the inner terminal ends of said rods bent at right angles as at 29 for reception in the openings 27 in the section 15, this arrangement holding the rods against rotation on their axes.

A figure toy of appropriate design is supported at the outer end of each rod 28, the toys illustrated being in the form of skirted dolls 30, a spindle 31 rising from the outer end of each rod rotatably supporting the frame 32 of the figure toy as will be evident from an inspection of Figure 1. The standard portion of the figure toy is in the form of ribs or vanes 33 as illustrated in Figure 4 for purposes presently to appear.

With the block member 13 disposed above the base 10 and adjacent the upper end of the spirally grooved shaft 12, the weight of the block member, radial arms 28 and figure toys 30 will effect a gravitational descent of the block member and with the finger connection 19 between the block member and spiral groove of the shaft, the block member is caused to rotate during such descent. During this rotation the radial arms 28 are moved in a circular path and the action of the air on the vanes 33 of the skirt portion of the figure so effects rotation of the figure toys 30 upon the spindles 31 rising from the outer ends of the rods 28. It will be noted that the upper and lower sections 14 and 15 of the block 13 are of solid construction and, further, that the cut-away portion 25 in the upper face of the lower section 15 of the block deepens in a direction toward the spirally grooved vertical shaft 12. After the block carrying the radial arms and the toys at the outer ends thereof descends to a position in proximity of the base 10, the block carrying the radial arms may then be quickly slid upwardly upon the spirally grooved shaft without the necessity of rotating the block, the thread engaging end of the resilient key finger being displaced from the spiral grooves and received in the lower end of the cut-away portion 25 and wiping over the outer face of the spirally grooved shaft. When the block is restored to a position adjacent the upper end of the shaft, the operating end of the key finger automatically engages in the groove of the shaft for tracking engagement therewith.

From the above detailed description of the invention it is believed that the construction and operation thereof will at once be apparent and while there is herein shown and described the preferred embodiment of the invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

I claim:

1. In a toy of the character described, a spirally grooved vertical shaft, a block vertically slidable and rotatable thereon and in threaded engagement with the shaft, rods radiating from said block and figure toys rotatably mounted at the outer ends of said rods, said block being formed of two sections and a key finger secured between said sections and having an end inclined in the direction of the spiral groove in said shaft and tracking therein.

2. In a toy of the character described, a spirally grooved vertical shaft, a block vertically slidable and rotatable thereon and in threaded engagement with the shaft, rods radiating from said block and figure toys rotatably mounted at the outer ends of said rods, said block being formed of upper and lower sections, a configurated depression in the upper face of the lower section exposed to said shaft, with the end of the depression adjacent the shaft being at a lower level and a similarly shaped key in said depression having a finger end capable of lowering movement into the inner end of said depression and tracking in the groove in the spirally grooved shaft.

3. In a toy of the character described, a spirally grooved vertical shaft, a block vertically slidable and rotatable thereon and in threaded engagement with the shaft, rods radiating from said block and figure toys rotatably mounted at the outer ends of said rods, said block being formed of two sections and a key finger secured between said sections and having a curved end tracking in the groove of the spirally grooved shaft, one of said sections being cut-away adjacent the tracking end of the key finger for the reception of said tracking end during upward sliding movement of the block for replacing the same at the upper end of the vertical shaft.

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