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2,557,348

COLOR SPINNER TOY

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Fig. 1.

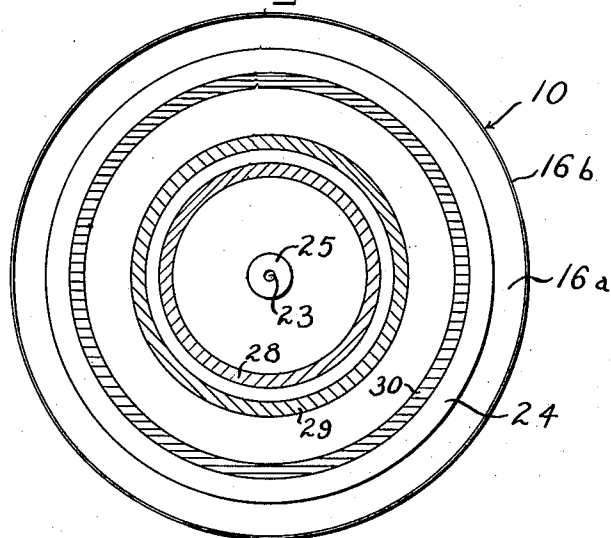


Fig. 2.

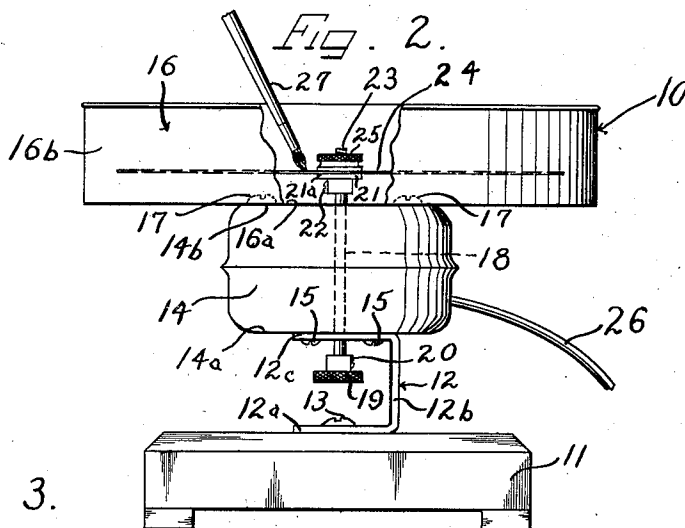
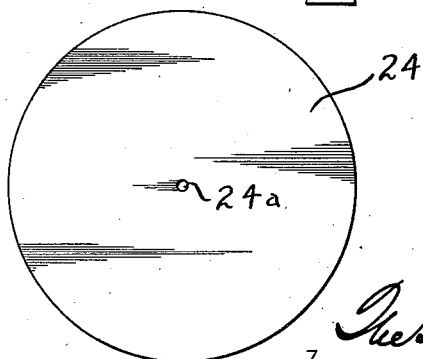


Fig. 3.



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COLOR SPINNER TOY

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2 Claims. (Cl. 91—42)

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This invention relates to a toy or amusement device including a rotating disk adapted to receive water colors from a paint brush touched thereon to produce pleasing and amusing rings of color. Specifically, the invention deals with a toy having an electric motor driven disk in a protecting pan for receiving colors to produce eye appealing effects whereby the pan prevents splattering of colors on adjacent objects.

The toy of this invention includes a mounting base carrying an electric motor. The motor in turn has a casing supporting the bottom of a pan. This pan is provided with an upstanding peripheral wall. The shaft of the motor projects through the base of the pan and carries a disk supporting member in the pan. A disk is horizontally mounted on the supporting member around a threaded spindle portion and a nut is threaded on the spindle against the disk to affix the disk on the supporting member for co-rotation with the shaft. The disk has a top surface receptive to colors such as water colors or the like. The disk is thereby replaceably attached to the shaft in the pan and carried at a level above the bottom of the pan and beneath the top of the wall of the pan. The disk can be composed of disposable material such as heavy paper or cardboard, or can be made of more permanent washable material such as plastic. The motor drives the disk at speeds around 1700 R. P. M. and touching a paint brush containing water colors against the rotating disk will immediately produce a ring of color on the disk. If the disk is touched on three or four radially spaced points with a paint brush containing different water colors, three or four rings of these colors will be produced and if the disk is then touched near its center with plain water or dilute water color, a wash effect will be obtained by the action of centrifugal force in spinning the more fluid water or dilute color outwardly over the previously applied rings toward the periphery of the disk. Amusing and pleasing rainbow color effects are obtained.

In a preferred embodiment of the invention the motor is mounted on the base through the media of a U-shaped bracket and the motor shaft extends beneath the motor casing into the open space provided by the bracket. A knurled knob is affixed to the shaft in this space and is readily grasped to prevent rotation of the shaft when tightening or loosening the clamping nut from the spindle end of the shaft in the pan. This facilitates removal and attachment of disks to the shaft in the pan.

It is then an object of this invention to provide

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an amusement device or toy enabling a child or unskilled operator to obtain eye appealing color effects on a rotating member.

A further object of the invention is to provide a toy spinner device for receiving colors to produce eye appealing color combinations and effects.

A still further object of the invention is to provide a color spinner toy including an electric motor driven disk for receiving water colors thereon to produce pleasing color effects.

A specific object of the invention is to provide a color spinner toy having an electric motor driven replaceable disk in a protecting pan and adapted to receive water colors and the like thereon for producing rainbow color effects without splattering the operator or adjoining objects.

Other and further objects of the invention will be apparent to those skilled in the art by the following detailed description of the annexed sheet of drawings which, by way of preferred example, illustrates one embodiment of the invention.

On the drawings:

Figure 1 is a top plan view of the color spinner toy of this invention.

Figure 2 is a side elevational view with parts broken away to show underlying parts of the color spinner toy.

Figure 3 is a plan view of a replaceable disk for the toy of this invention.

As shown on the drawings:

A color spinner toy 10 shown in Figs. 1 and 2 includes a mounting base 11 having a U-shaped bracket 12 secured to the axial center of the top face thereof. Thus the bracket 12 has a bottom horizontal leg 12a receiving a bolt 13 therethrough to attach the bracket to the base. The bracket has a vertical upstanding web 12b and a top leg 12c overlying the leg 12a in spaced relation. An electric motor casing 14 has a flat bottom face 14a resting on the top leg 12c of the bracket 12 and secured thereto by means of screws 15. The motor casing has a flat top wall 14b receiving the base 16a of a pan 16 thereon. Screws 17 secure the pan 16 to the motor casing 14. The pan 16 has an upstanding peripheral wall 16b therearound and this wall is preferably of cylindrical configuration.

The motor in the casing has an armature driven shaft 18 projecting beyond both end faces 14a and 14b of the casing. The lower end of the shaft extends through the leg 12c of the bracket into the space between the legs of the bracket and a knurled knob 19 is secured thereon

in this space. A set screw 20 is provided on the knob 19 to lock the knob to the shaft.

The top end of the shaft 18 projects through the base 16a of the pan 16 and receives a support member 21 thereon. The support member is affixed to the shaft by means of a set screw 22. The support member has a top face 21a positioned at a level above the base 16a of the pan but beneath the top of the wall 16b of the pan. A threaded spindle portion 23, which can be integral with the shaft 18, projects above this supporting face 21a of the support member and is coaxial with the shaft 18.

A disk 24 composed of self-supporting paper or cardboard, plastic or the like, has a central aperture 24a therethrough adapted to receive the spindle 23 therein. The disk 24 is bottomed on the support surface 21a of the support member 21 and a knurled nut 25 is threaded on the spindle 23 to thrust against the disk 24 for clamping disk between the nut and surface 21a of the support member 21 for co-rotation with the shaft 18. The disk is thereby held at a level in the pan 16 above the base 16a thereof but below the top of the peripheral wall 16b. The disk is readily replaced by removal of the nut 25 from the spindle 23.

In mounting a disk 24 for co-rotation with the shaft in the pan 16 or in removing a disk 24 from the shaft and pan the knob 19 on the shaft is preferably grasped to prevent rotation of the shaft so that the nut 25 can be readily rotated on and off the spindle 23.

The electric motor in the casing 14 is energized through an electric wire 26 and rotates the shaft 18 at speeds around 1700 R. P. M. At these speeds the disk 24 is subjected to sufficient force so that even a relatively limp sheet of paper will tend to maintain a single horizontal plane.

If the rotating disk 24 is touched even lightly with a water color laden paint brush such as 27, rings such as 28, 29 and 30 of color will be immediately formed on the top face of the disk. This top face of the disk is receptive to water colors and the like and is adapted to be colored thereby. For example, if different colors on the paint brush 27 are successively applied to the disk, the rings 28, 29 and 30 will be formed in different colors, and if a wash is then applied toward the rotating center of the disk this wash will be flung outward by centrifugal force over the differently colored rings 28, 29 and 30 to provide a rainbow effect and blending of the different colors of the rings. The wash can be applied by depositing water from the brush 27 onto the disk near the rotating center thereof. Alternately, of course, the wash can be colored and sufficiently fluid to travel outwardly by centrifugal force over the top face of the disk. Many pleasing and amusing color effects and combinations can be obtained.

The upstanding wall 16b of the pan 16 catches any colors that are flung off of the disk and prevents splattering of adjacent objects.

From the above description it will be appreciated that I have provided a spinner toy that will easily produce eye appealing and amusing

color combinations and effects without requiring any skill so that even a young child can operate and be amused with the toy.

It will, of course, be understood that various details of construction may be varied through a wide range without departing from the principles of this invention and it is, therefore, not the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claims.

I claim as my invention:

1. A color spinner toy comprising a base, a bracket having a bottom leg secured on top of said base, a vertical leg extending from the bottom leg and a top leg overlying the bottom leg in spaced relation therefrom, a motor casing secured on top of said top leg of the bracket, a pan secured on top of said motor casing, said pan having an upstanding peripheral wall therearound, a motor shaft projecting from said casing into said pan and into the space between the top and bottom legs of the bracket, a knob secured on said shaft in the space between said legs of the bracket, and disk attachment means secured on said shaft in said pan for releasably carrying a disk in the pan to rotate with the shaft, and said knob in the space between the legs of the bracket being conveniently accessible for holding the shaft against rotation when replacing a disk on the shaft in the pan.

2. An amusement device for producing pleasing color effects which comprises a base, a bracket having a bottom leg secured on top of said base, a vertical leg extending from the bottom leg and a top leg overlying the bottom leg in spaced relation therefrom, a motor casing secured to the top leg of the bracket, a pan secured on top of said motor casing, said pan having an upstanding peripheral wall therearound, a motor shaft projecting from said casing into said pan, disk attaching means secured on said shaft in said pan for releasably carrying a disk in the pan to rotate with the shaft, and means for holding the shaft against rotation while replacing a disk on the shaft in the pan, the upper surface of said disk being exposed for the selective application of colors from a brush or the like thereto.

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