

No. 838,305.

PATENTED DEC. 11, 1906.

E. L. CURIAL.
TOY.

APPLICATION FILED MAR. 19, 1904. RENEWED MAR. 28, 1905.

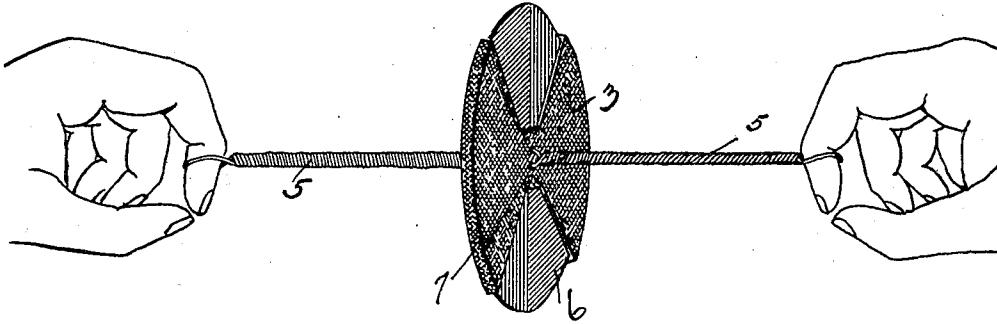


FIG. 1.

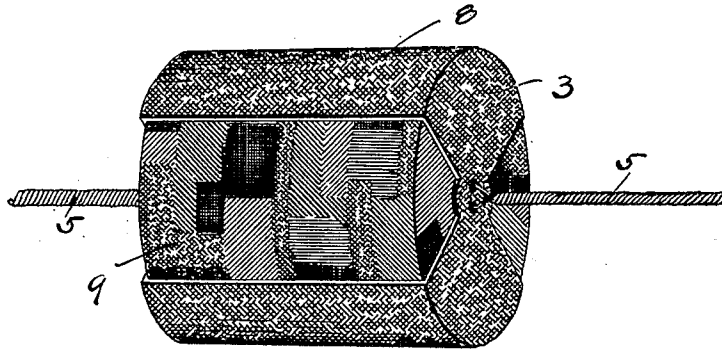


FIG. 2.

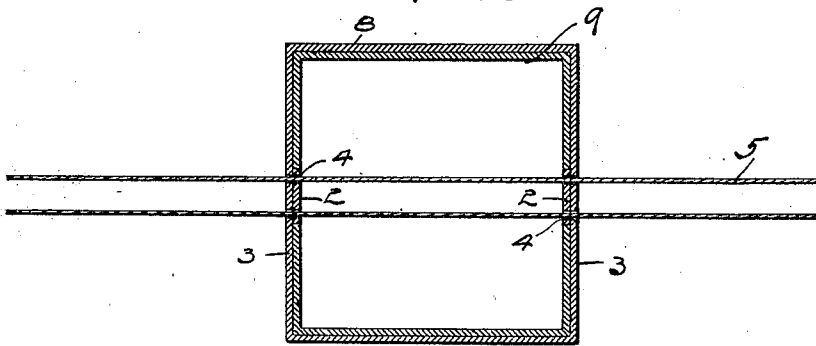


FIG. 3.

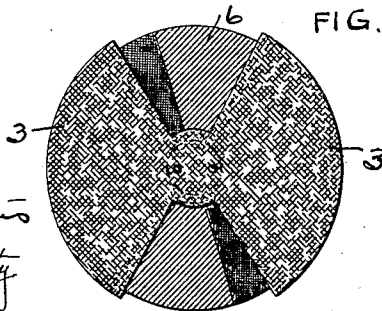


FIG. 4.

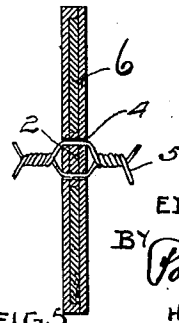


FIG. 5.

WITNESSES
M. M. Hager
M. Hager

INVENTOR
EDWARD L. CURIAL
BY *Paul & Paul*
HIS ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWARD L. CURIAL, OF ANOKA, MINNESOTA.

TOY.

No. 838,305.

Specification of Letters Patent.

Patented Dec. 11, 1906.

Application filed March 19, 1904. Renewed March 28, 1905. Serial No. 252,526.

To all whom it may concern:

Be it known that I, EDWARD L. CURIAL, of Anoka, Anoka county, Minnesota, have invented certain new and useful Improvements in Toys, of which the following is a specification.

The object of my invention is to provide an amusing and instructive toy adapted to be manipulated by the torsion of a string and by means of which pleasing and beautiful color effects can be produced.

The invention consists generally in a hub and a relatively fixed and loosely-mounted screen and colored disk mounted thereon and a string connected with said hub for revolving the same.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view showing the manner of using my invention. Fig. 2 is a similar view showing the invention applied to a cylindrical device. Fig. 3 is a longitudinal section of Fig. 2. Fig. 4 is a side elevation of the device illustrated in Fig. 1. Fig. 5 is a section on the line *x x* of Fig. 4.

In the drawings, 2 represents a hub of any suitable material, and 3 sector-shaped plates or screens secured on each end thereof. The hub is provided with two eyelet-holes 4, one on each side of the center, through which a string 5 is threaded, having ends adapted to be grasped by the fingers to revolve the hub and screen and twist the string. The hub is made to revolve one way or the other by pulling on the string in the well-known way.

Between the screens 3, loosely mounted on the hub 2, is a circular disk 6, having its surfaces suitably spaced and marked with the primary colors. In Fig. 1 I have shown the surface of one side of the disk divided into differently-colored sector-shaped spaces or areas, but obviously the shape of these spaces may be varied according to the fancy of the manufacturer.

Between the contiguous outer ends of the screens 3 I provide narrow strips 7, which serve to hold the said ends in place and render the device more substantial and durable and act as guides for the colored disk. The disk revolves freely between the screens when the device is set in motion by the torsion of the string, and as the spaces thereon are alternately covered and exposed a very beautiful blending and mixing of the constantly-changing combination of colors is obtained.

In Figs. 2 and 3 I have shown the invention applied to a cylindrical toy wherein the screens are separated a considerable distance to allow the insertion of a loosely-mounted cylinder between them. The construction of this cylinder is similar to the device shown in Fig. 1, except that the screens are arranged farther apart and two hubs, one at each end, being provided in place of one. I also provide curved peripheral plates 8 in place of the narrow strips 7 between the corresponding ends of the screens and two colored disks loosely mounted on said hubs and connected by a ring or band 9, having on its surface a series of primary color areas, which when the cylinder is revolved by the torsion of the string are alternately covered and exposed through the openings therein. The operating-string extends through the hubs from end to end of the cylinder, as shown in Fig. 3, and by pulling thereon the device will be revolved and a color effect similar to that produced by the manipulation of the disk will be obtained, except that it will be even more beautiful, owing to the larger exposure of colored area.

I claim as my invention—

1. A toy comprising circular shading-disks having sector-shaped openings or notches in their edges extending inwardly to a point near their center, a hub having its ends between said disks and secured centrally thereto and having an operating means and a color-disk loosely mounted on said hub between the said shading-disks and visible from either side when said shading-disks and hub are revolved.

2. A toy comprising a hub, sector-shaped shading and guide disks centrally secured to the ends of said hub and having eyelet-holes coinciding with similar holes in said hub, and a color member loosely mounted on said hub between said shading-disks and held against lateral movement thereby but free to revolve between them.

3. A toy comprising a hub, sector-shaped shading-disks mounted on the ends of said hub with a space between them, a variously-colored member mounted on said hub between said shading-disks, and peripheral filling-strips connecting the contiguous edges of said shading-disks, substantially as described.

4. A toy comprising a hub, shading or guide disks mounted on the ends of said hub and including said ends between them, and a color member loosely mounted on said hub

between said shading or guide disks and held against lateral movement thereby but free to revolve between them.

5 5. A color-display device comprising a hub and a shading means connecting the ends thereof and having observation-openings, and a color member embraced and partially concealed by said shading means and loosely

mounted on said hub and visible through said openings. 10

In witness whereof I have hereunto set my hand this 15th day of March, 1904.

EDWARD L. CURIAL.

In presence of—

RICHARD PAUL,
M. HAGERTY.