H. VAN ALTENA.
Chromatic Top.

No. 233,820. Patented Oct. 26, 1880.

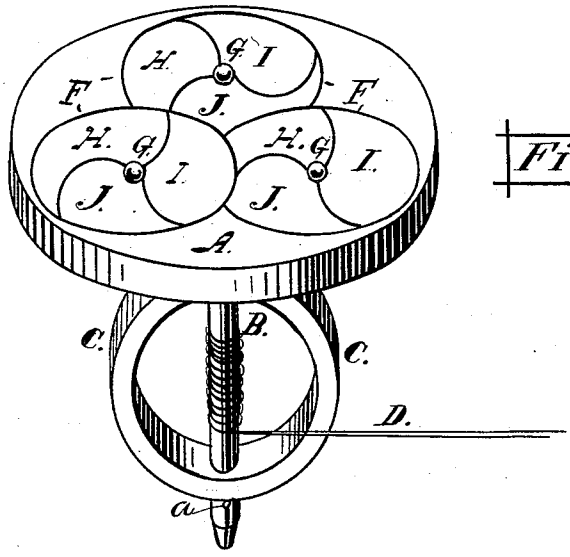


Fig. 1.

Fig. 2.

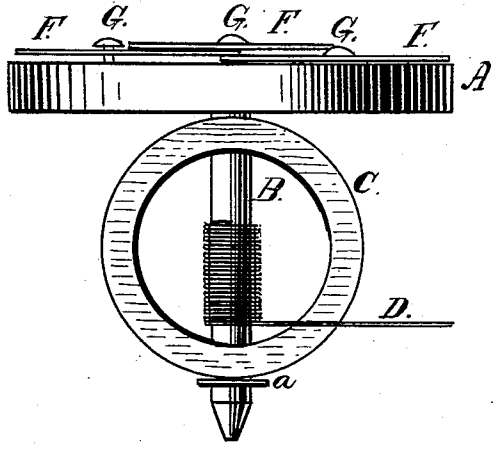
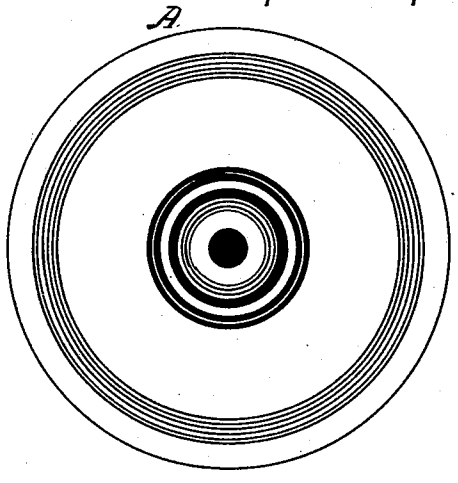


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY VAN ALTENA, OF MILWAUKEE, WISCONSIN.

CHROMATIC TOP.

SPECIFICATION forming part of Letters Patent No. 233,820, dated October 26, 1880.

Application filed January 20, 1880.

To all whom it may concern:

Be it known that I, HENRY VAN ALTENA, a citizen of the United States, residing at the city of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Chromatic Tops; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the accompanying drawings represents a perspective view of my invention. Fig. 2 is a side view of the same. Fig. 3 represents a top view as it appears when rapidly revolved.

The object of my invention is to provide a self-winding chromatic top which may be spun both when held or placed upon a smooth surface, and which will when operated produce a great variety of beautiful circles by the blending together of a few of the prime colors, all of which is further explained by reference to the accompanying drawings, in which like parts are represented by the same reference-letters.

A represents the body of the top, which is constructed of wood or any equivalent material of sufficient heft to maintain the momentum required.

B is a pointed spindle. C is a ring, by which the top is held when operated. *a* is a small pin, by which the spindle is retained in the ring. The spindle B passes through holes in the ring at opposite sides, in which it is loosely fitted, and revolves when the top is held. When the top is spun upon a table, a person's hand, or other smooth surface, the ring C revolves with the spindle. When held the spindle revolves in the ring. The top is revolved alternately in opposite directions by alternately drawing upon and releasing the cord D.

F F F are colored disks, which are constructed of card-board or other thin material. The disks F are each provided with eyelets at their centers, through which loosely-fitting tacks or pins G are inserted, and by which pins or tacks the disks are attached to the body of the top, as shown in Figs. 1 and 2. The disks F are thus secured to the body A, eccentric to the spindle B, and revolve freely upon their respective centers automatically, while they all revolve around a common center with the revolving body A.

H, I, and J represent the several prime colors which are used upon the respective disks.

When operating the toy, and especially when holding it and revolving the top alternately in opposite directions, the relative positions of the colors H, I, and J are constantly changed by the automatic movement of the respective disks upon their respective centers. This change in the relative position of the colors brings different colors in contact, whereby the great variety of appearances referred to is produced. The rapid motion of the top blends the colors together, so that the prime colors and the form of the disks cannot be distinguished, and the whole, when thus rapidly revolved, has the appearance of one large disk composed of a variety of beautiful-colored rings, as represented by Fig. 3, which rings are continually changing in hue and shade, and the rings are also continually changing their relative position to each other.

The toy may be held in the hand and operated, as described, alternately in opposite directions until an appearance which is desired to be prolonged is produced, when the top is allowed to spin upon a table or the operator's hand in the ordinary manner, when the appearance will remain the same as long as it continues to spin.

It is obvious that the motion of the top will wind the cord upon the spindle before stopping, when it is in readiness to be started again.

Having thus described my invention, I do not claim the colored disks F, body A, or spindle B, broadly, as I have previously procured

a patent for substantially the same, dated August 28, 1877, No. 194,628; but

What I claim as new, and desire to secure by Letters Patent, is—

In a chromatic top, the combination of the body A, provided with colored disks F, loosely pivoted thereto by pins G, eccentric to the pointed spindle B, the spindle being provided with cord D, and a loosely-fitting ring, C, the ring being adapted to revolve with the spindle, or to be used as a handle, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY VAN ALTENA.

Witnesses:

JAS. B. ERWIN,

WM. R. WEST.