H. D. FORBES.
Whirligig.

No. 207,649. Patented Sept. 3, 1878.

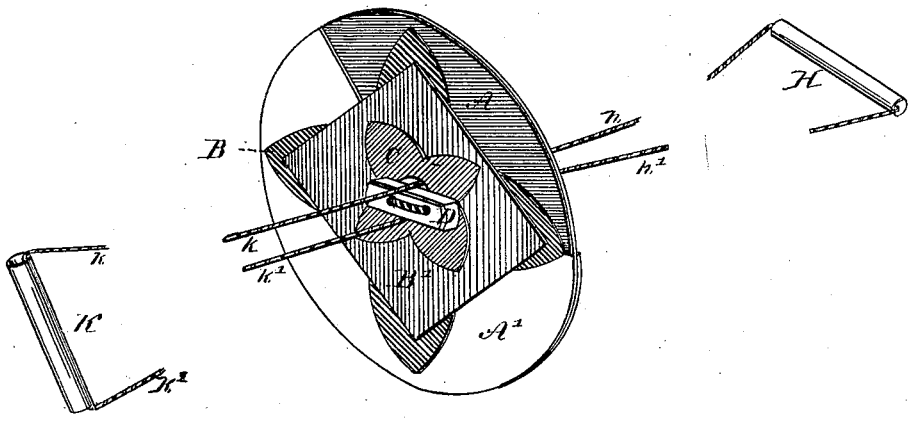

Fig. 1

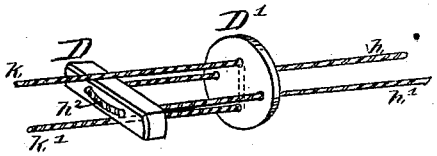

Fig. 2

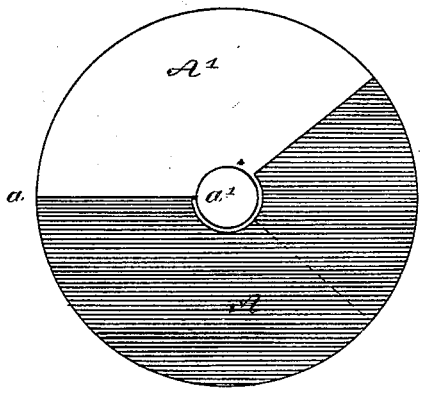

Fig. 3.

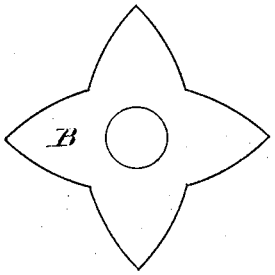

Fig. 4.

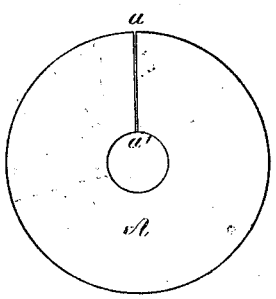

Fig. 5.

WITNESSES
Fred Odiorne
William Edson

INVENTOR
Henry D. Forbes

UNITED STATES PATENT OFFICE.

HENRY D. FORBES, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN WHIRLIGIGS.

Specification forming part of Letters Patent No. **207,649**, dated September 3, 1878; application filed June 22, 1878.

To all whom it may concern:

Be it known that I, HENRY D. FORBES, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Chromoscopic Whirligigs, of which the following is a specification:

The toy known as the "whirligig" has heretofore been constructed of a single disk having two holes, through which the twirling-strings pass.

By my invention I am enabled to combine in a single toy an indefinite number of disks; and the said invention consists in combining, with the disks and twirling-strings, buttons, washers, or stay-pieces, which together form a double purpose—that is, they hold the several disks in position, and also serve to divide the twirling-strings, so that although there may be but a single hole through the disks, yet the device as a whole becomes a true whirligig.

The details of the invention may be best understood by reference to the accompanying drawings and description.

In the drawings, Figure 1 is a perspective view, showing my invention. Fig. 2 shows the clamping device in perspective. Figs. 3, 4, and 5 show some of the forms of the several disks.

H and K represent the handles attached to the twirling-strings $h\,h^1$ and $k\,k^1$. These twirling-strings pass through buttons or blocks, as shown in Fig. 2, that is—the strings h and h^1, which come from the handle H, pass through the button D′ and form a loop, h^2, on the block D, while the strings $k\,k'$ pass on either side of the block D and form a loop on the button D′, (see Fig. 2,) so that when the strings are pulled they draw the block D toward the button D′, and will firmly clamp and hold any number of disks that may be placed between them.

The block D is made in this case so slender that it may pass readily through the circular openings in the disks, so that the disk may be readily removed or replaced by slacking the strings and passing the block D through the openings; or, if thought desirable, the clamping pieces D and D′ may both be circular, or of any other desired shape, and the disks may be cut radially from the central opening to the circumference, as indicated at $a\,a'$, Figs. 3 and 5, so that they may be readily removed, although the clamping-pieces D D′ may be much larger than the openings in the disks.

The advantage of having the strings pass through a single opening is that the disks may be readily adjusted circumferentially one upon the other, so as to produce new combinations. This could not take place if the strings passed through two holes in the disk, as they do in the ordinary whirligig. I also obtain a variety by sliding one part of one disk, A, Fig. 3, for instance, through the cut $a\,a'$ of the disk A′, the said disks being of different colors.

The revolving disks may vary in color, shape, and size, so that by adjustment the toy may become very instructive as a chromoscope.

Having now described the construction and operation of my invention, what I claim, and desire to secure by Letters Patent, is as follows:

1. In a whirligig, the combination of the pieces D D′, and the doubled and looped strings $h\,h^1$ and $k\,k'$, whereby the said pieces and strings form a self-clamping device, substantially as described, and for the purpose set forth.

2. The combination of the clamping-block D′ and the disks A B C, &c., having each a single opening, with the clamping-block D, arranged to readily pass through the opening in the disks, substantially as described.

3. In a whirligig, the combination of several colored disks, each disk having a central opening and a radial cut extending from center to circumference, whereby one of said disks may be overlapped more or less upon another, thus producing an endless variety of combinations, substantially as described, and for the purpose set forth.

HENRY D. FORBES.

Witnesses:
FRANK G. PARKER,
WILLIAM EDSON.