

No. 885,928.

PATENTED APR. 28, 1908.

S. A. HUNT.
CHROMATROPE.

APPLICATION FILED OCT. 24, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

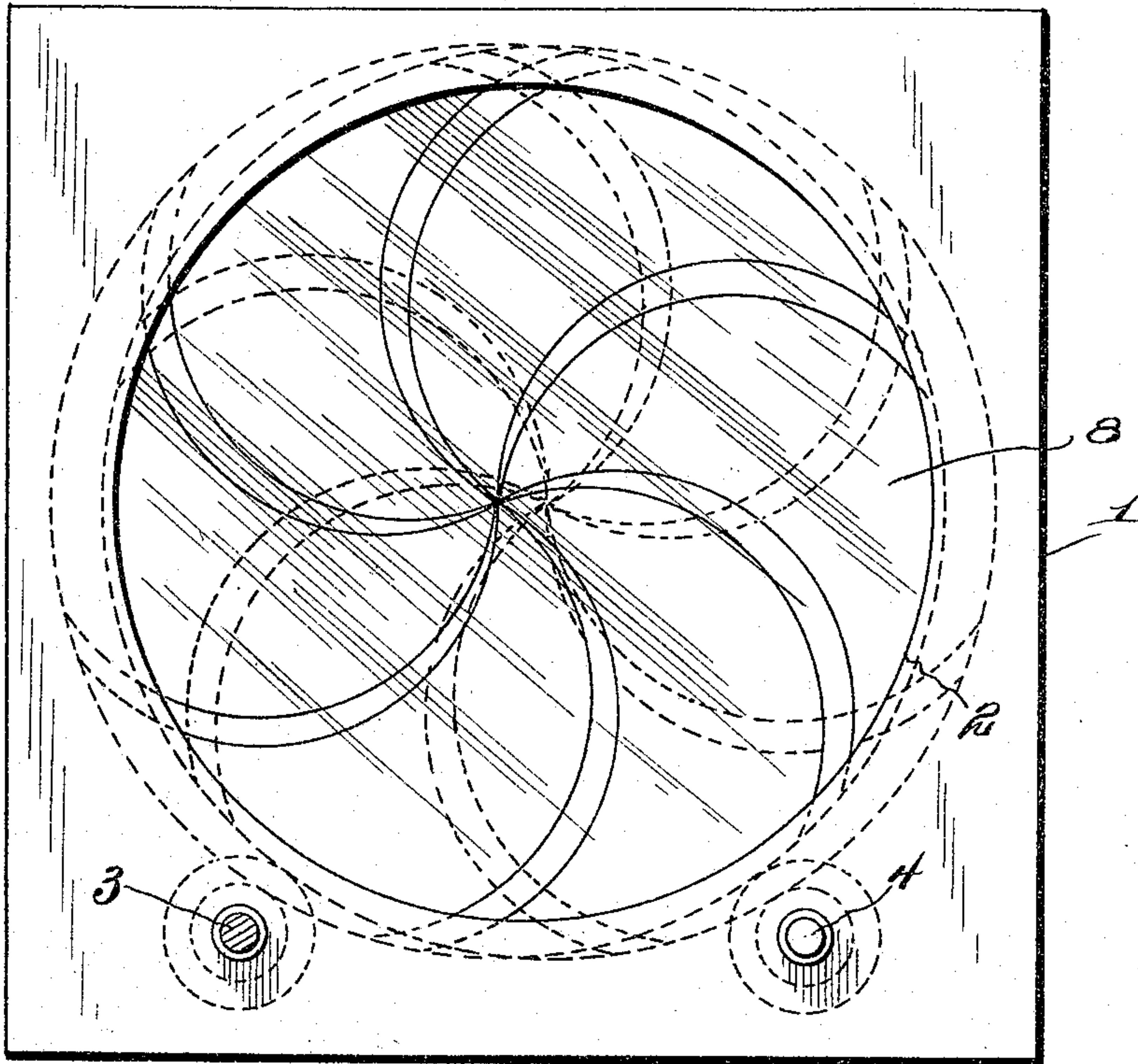
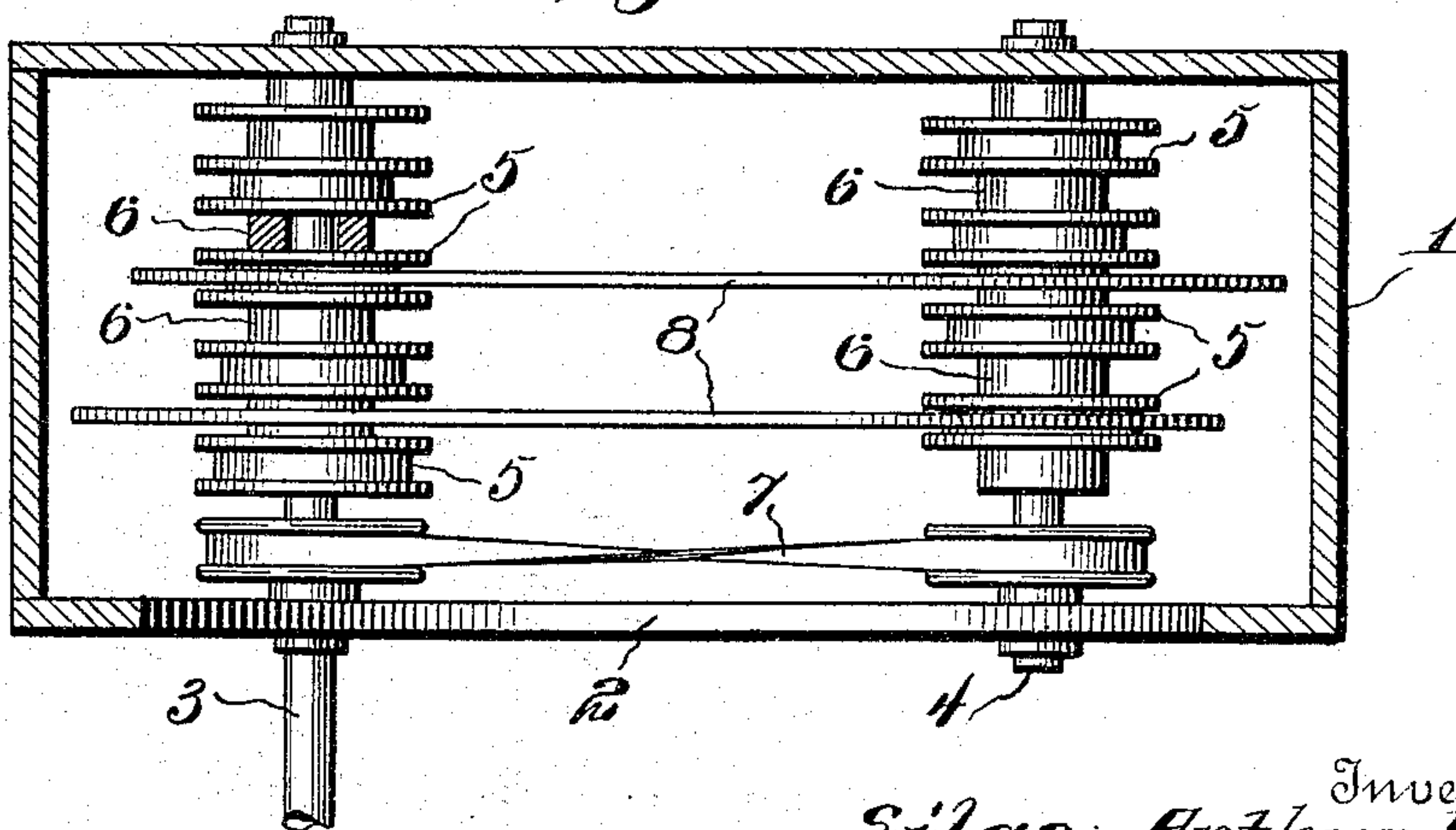


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

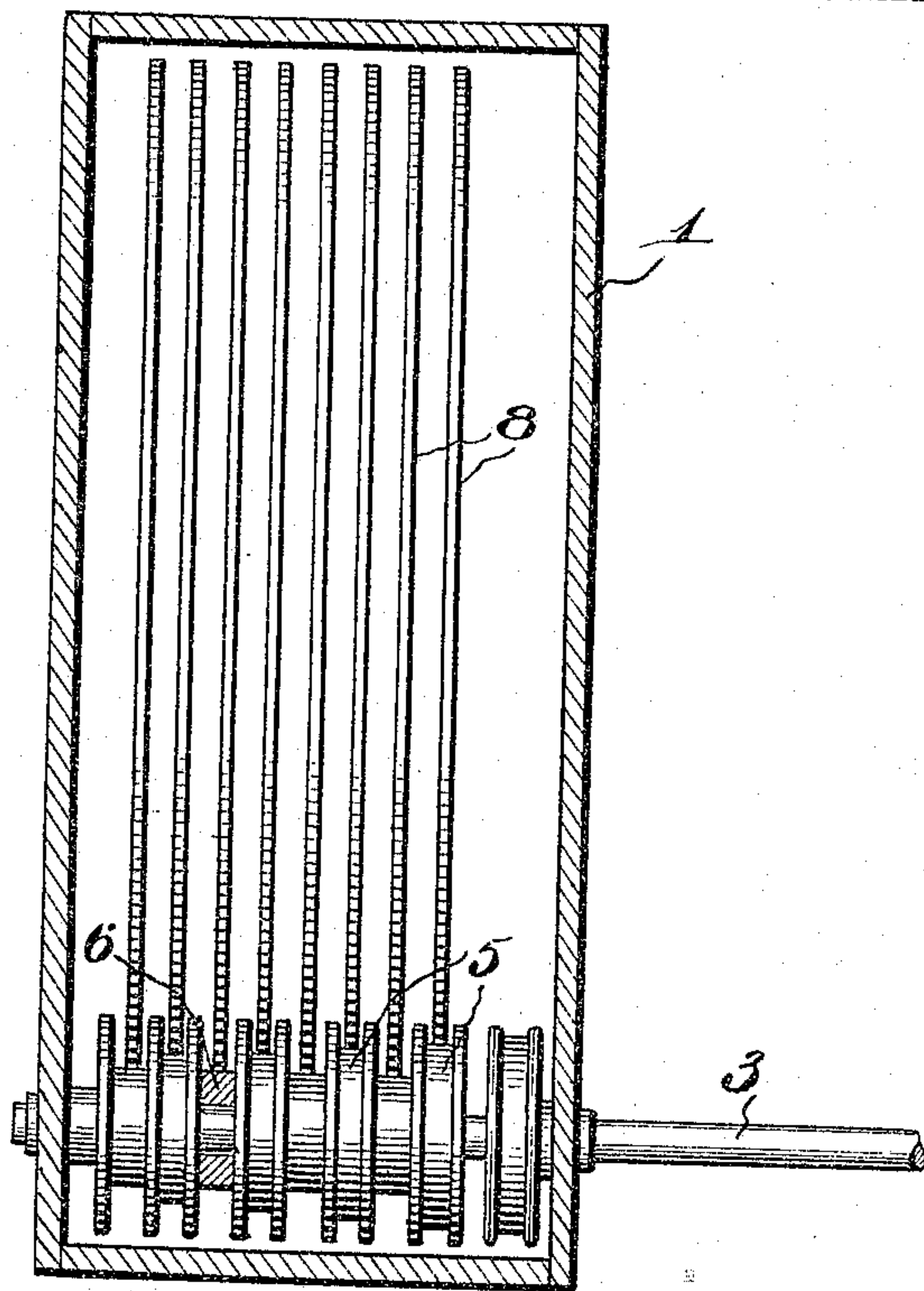
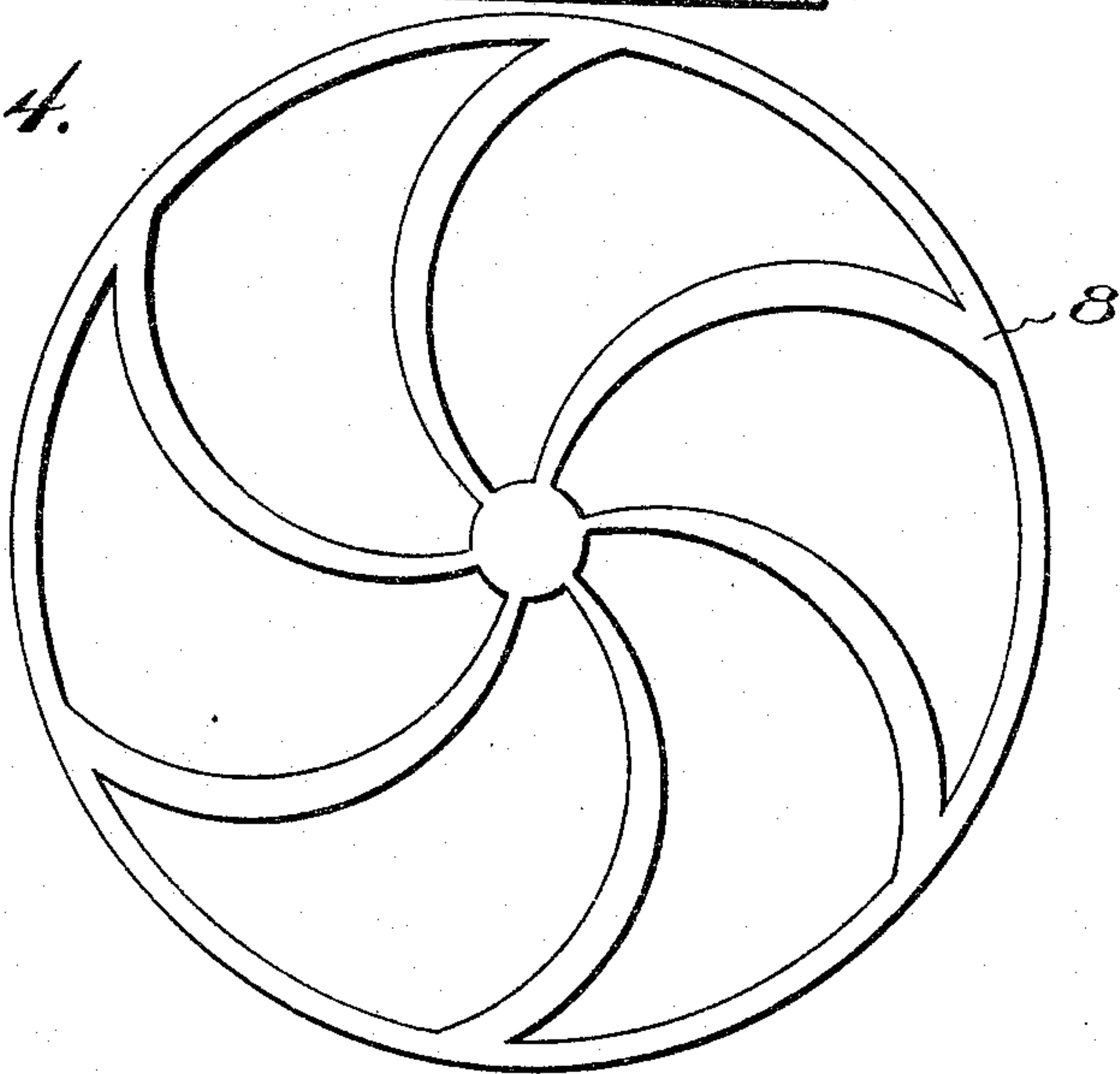


Fig. 4.



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UNITED STATES PATENT OFFICE.

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CHROMATROPE.

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To all whom it may concern:

Be it known that I, SILAS ARTHUR HUNT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Chromatropes; and I do 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.

This invention relates to chromatropes to be used as a window sign or as an amusement device, and embodies in its organization a series of transparent disks having variously colored designs painted thereon, together with means for supporting and revolving the disks in relatively reverse directions, thereby displaying a constantly changing multi-colored figure or pattern.

The invention has for its objects to provide a comparatively simple, inexpensive device of this character wherein the disks will be supported and operated by means of shafts engaged with their peripheral edges, thus obviating the necessity for perforating the disks; one wherein the operating shafts serve as the sole means for supporting the disks, and one in which the general design or pattern displayed will be of constantly changing nature.

With these and other objects in view, the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a device embodying the invention; Fig. 2 is a top sectional plan view of the same; Fig. 3 is an end elevation of the device; and Fig. 4 is a view illustrating a slightly modified form of disk.

Referring to the drawings, 1 denotes a casing having a circular opening 2, there being journaled for rotation in the casing a pair of supporting and operating shafts 3 and 4, carrying grooved pulleys 5, spaced apart by means of idler sleeves or spacers, 6, the pulleys on one shaft being disposed opposite the spacers on the other shaft. The shaft 3 is projected at one end beyond the adjacent wall of the casing for connection with a clock-work mechanism, electric motor or other power, while connecting the shafts within the casing is a crossed belt, 7, whereby the shafts are driven one from the other and in relatively reverse directions.

Arranged within the casing opposite the opening 2 is a series of glass or other transparent disks, 8, which seat at their lower edges over the shafts 3 and 4 and rest on the driving pulleys, 5, and idler spacers or loose pulleys, 6, as clearly illustrated in Fig. 3, it being noted that the disks are thus peripherally sustained for rotation in the manner presently described, thus to obviate necessity for perforating the disks. Further, it will be noted that the disks have painted or otherwise delineated thereon, differently colored designs or figures which can be seen through the whole number of disks.

In practice, as the shafts are rotated, the pulleys, 5, will, through frictional engagement with the edges of the disks resting thereon, serve to rotate said disks for driving them in relatively reverse directions, it being noted that all of the disks engaged with the pulleys on one shaft will be driven in an opposite direction from those engaged with the pulleys on the other shaft; and, further, that the idler spacers serve, in conjunction with the pulleys, to support the disks and permit of their being reversely driven, as explained. The disks are made of different diameters, varying in size about one-sixteenth of an inch, whereby they will be driven at different rates of speed and will, consequently, produce a constantly changing general pattern or figure to be displayed through the opening 2.

In the form of device disclosed in Fig. 4, and which provides for the employment of non-transparent material, the disk is made of skeleton formation, or, that is, with all of its surface area cut away except that portion which bears the fanciful pattern or design. Aside from this difference, the construction and operation of the device when employing non-transparent material in the make-up of the disks, will be identical with that above described.

It is to be noted that this device may be made of a size for use as a window display device, or can be made of a size adapting it for use as a toy, and, therefore, such changes as may in practice be found necessary to adapt the device for the different purposes for which it may be employed, may be resorted to without departing from the spirit or scope of the invention.

Having described my invention, what I

claim as new and desire to secure by Letters-Patent, is:

1. A chromatrope comprising a pair of shafts driven in relatively reverse directions, and a plurality of disks supported by their respective peripheries by said shafts and adapted to be driven in relatively reverse directions.

2. In a device of the class described, a plurality of disks bearing fanciful designs, a rotary member engaged with the peripheries of some of said disks for supporting and driving them in one direction, and a rotary member similarly engaged with and for driving the remainder of the disks in an opposite direction.

3. In a device of the class described, a series of free disks bearing fanciful designs, and of different diameters, and a pair of rotary members driven in opposite directions and each engaged with and driving a number of said disks.

4. In a device of the class described, a pair of shafts driven in relatively reverse direc-

tions, pulleys fixed on said shafts, idler spacers between the pulleys, the pulleys on one shaft being disposed oppositely to the spacers on the other shaft, and a series of disks each peripherally supported on a pulley and a spacer to provide for some of the disks being operated by one of the shafts and the others by the other shaft.

5. In a device of the class described, a pair of rotary shafts carrying loose and drive pulleys, means connecting the shafts to be driven one from the other in relatively reverse directions, and a series of disks of different diameters each arranged to rest at its periphery on a loose pulley on one shaft and a fixed pulley on the other shaft, said disks bearing fanciful patterns or designs.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

SILAS ARTHUR HUNT.

Witnesses:

DEH. E. TIMERMAN,
MAX PASELK.