

T-2535

(No Model.)

T. HOLLANDER.
APPARATUS FOR PRODUCING ILLUSIVE EFFECTS.
No. 592,631. Patented Oct. 26, 1897.

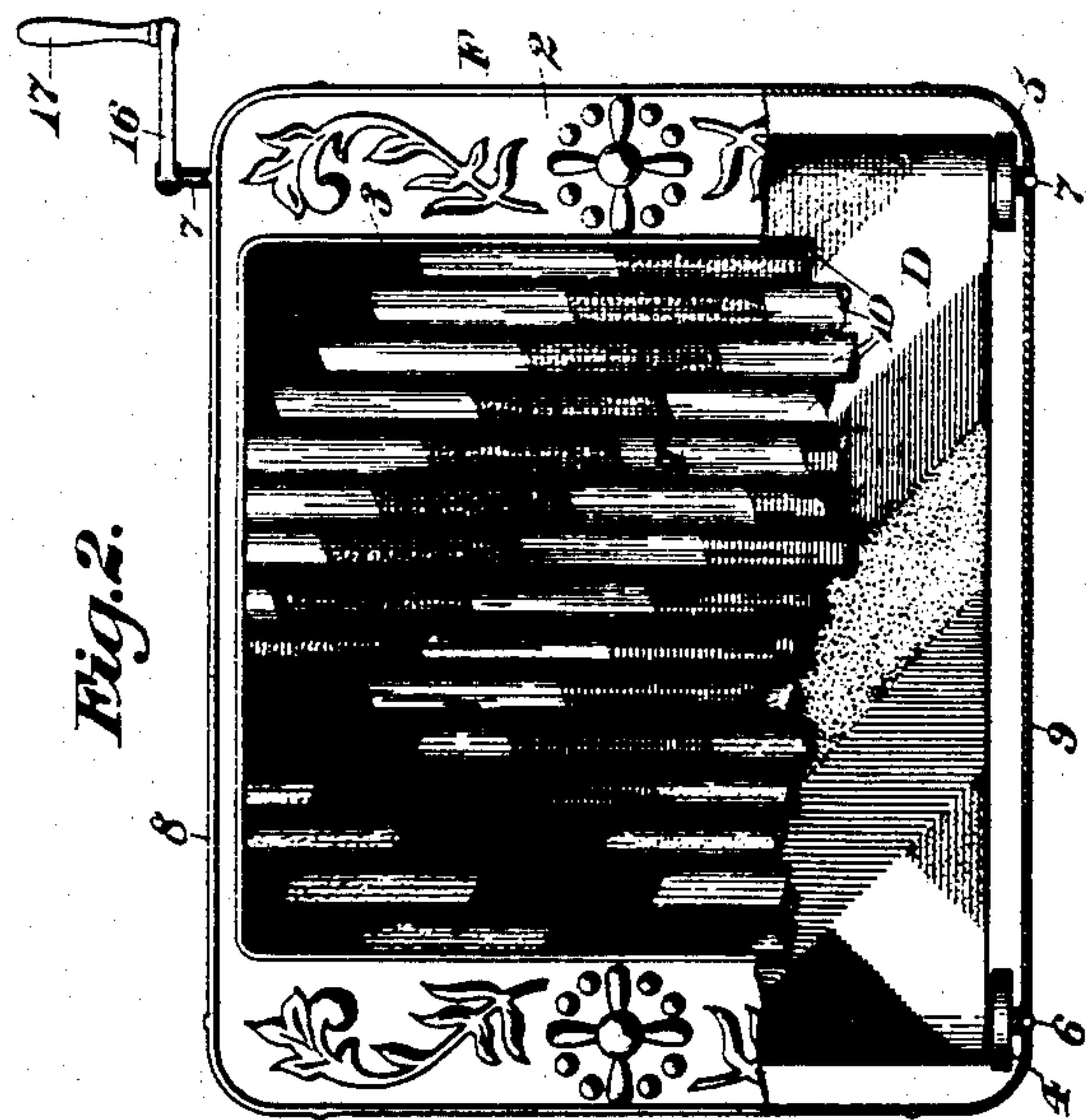
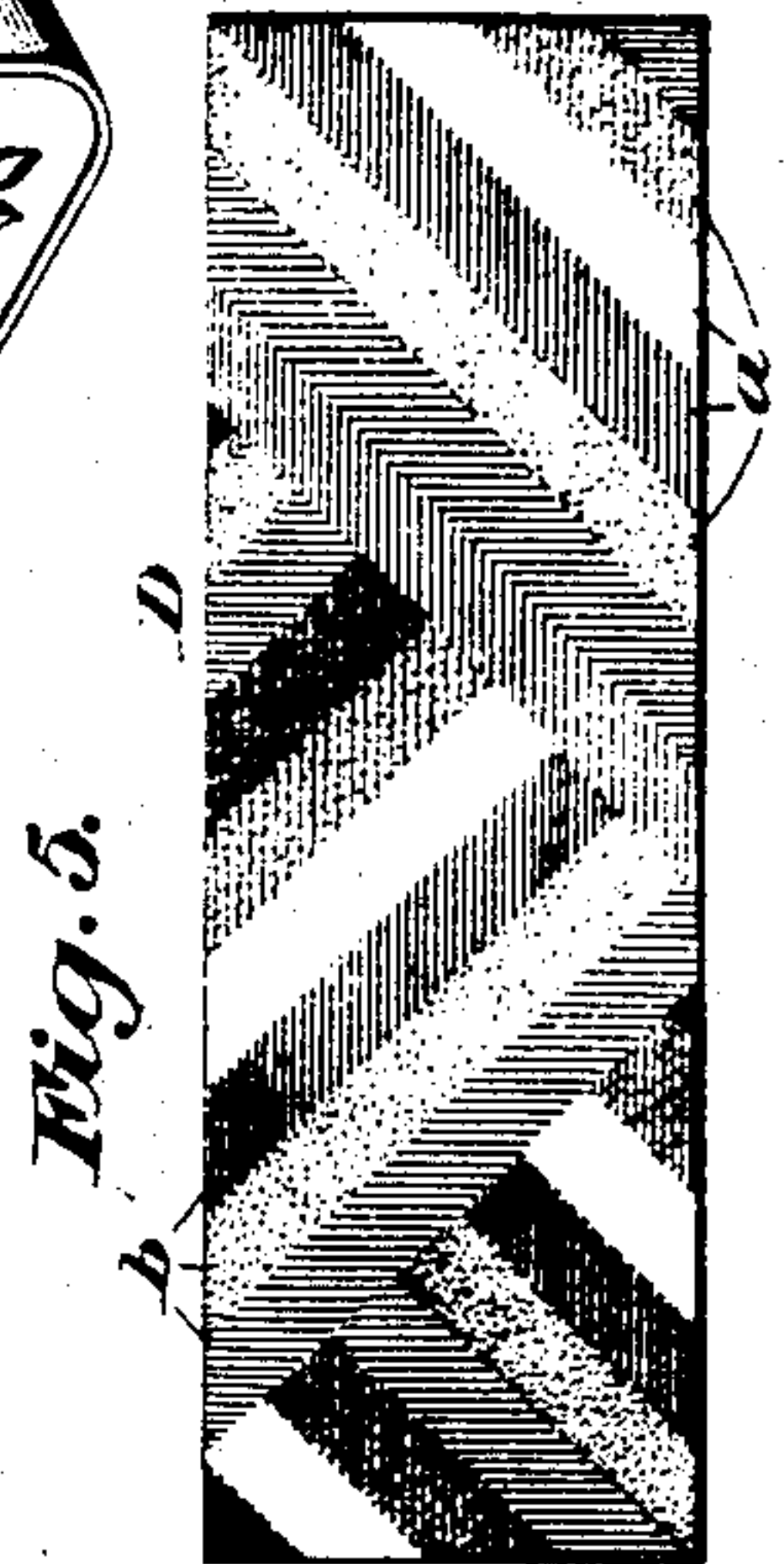
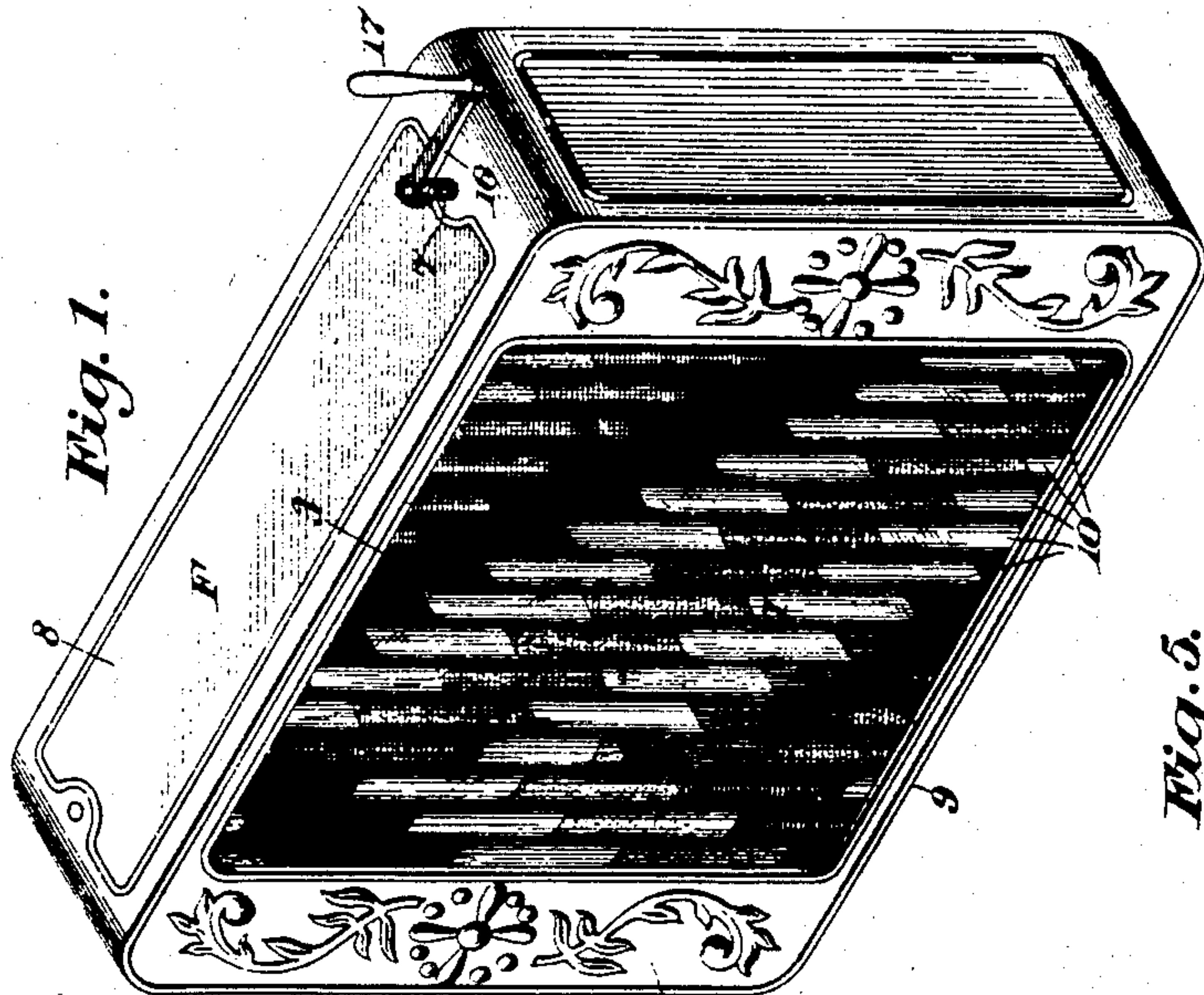
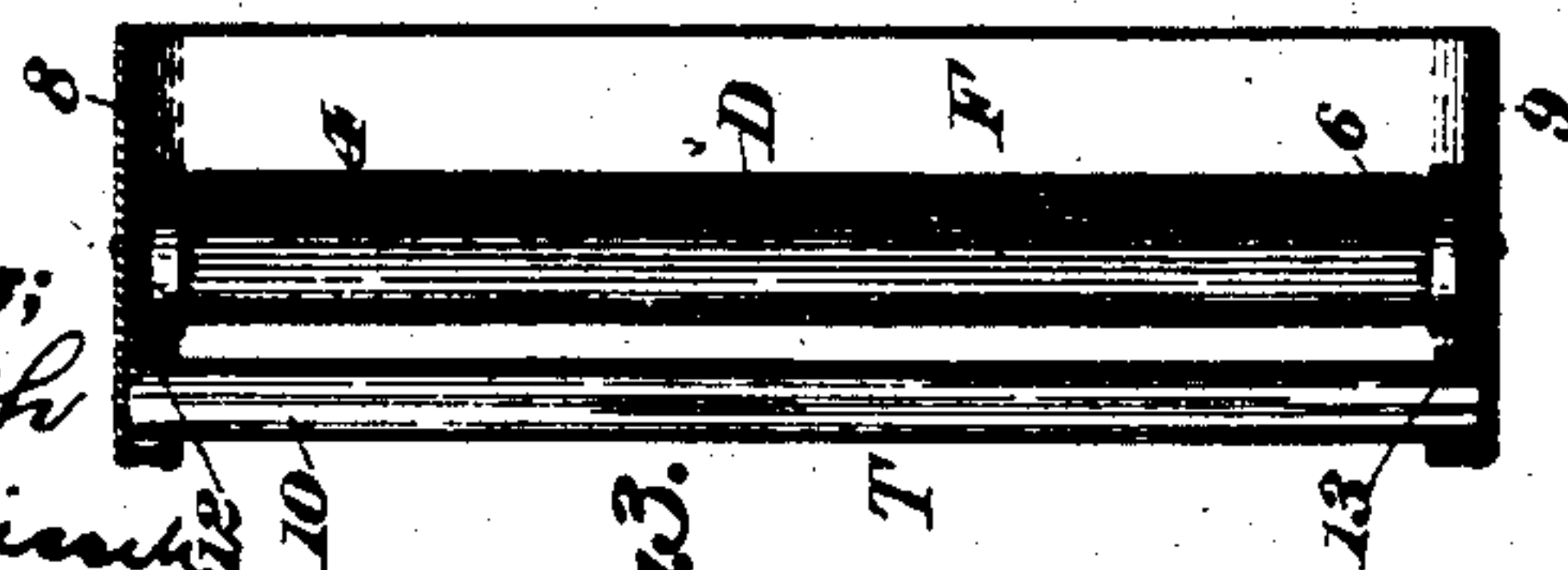
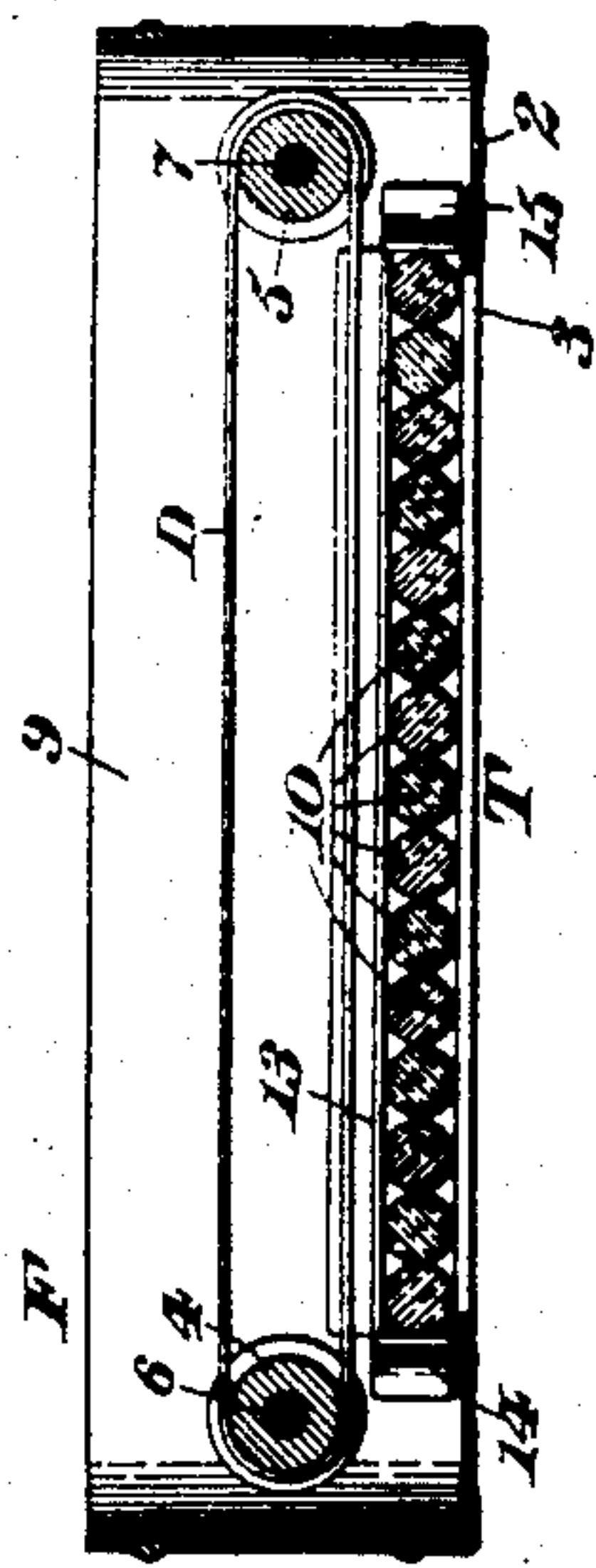


Fig. 4.



Witnesses;
C. Smith
Henry Bunker

Fig. 3.

Inventor:
Theodore Hollander,
By his Attorney,
F. A. Richard.

UNITED STATES PATENT OFFICE.

THEODORE HOLLANDER, OF MIDDLETOWN, CONNECTICUT, ASSIGNOR OF FORTY-NINE ONE-HUNDREDTHS TO ROMAINE A. CHAPMAN, OF SAME PLACE.

APPARATUS FOR PRODUCING ILLUSIVE EFFECTS.

SPECIFICATION forming part of Letters Patent No. 592,631, dated October 26, 1897.

Application filed June 1, 1897. Serial No. 638,920. (No model.)

To all whom it may concern:

Be it known that I, THEODORE HOLLANDER, a citizen of the United States, residing in Middletown, in the county of Middlesex and State of Connecticut, have invented certain new and useful Improvements in Devices or Apparatus for Producing Illusive Effects, of which the following is a specification.

This invention relates to an apparatus or device for producing illusive effects either pleasing to the eye, grotesque, or fantastic, and it is capable of employment as a toy, advertising device, or for various other purposes.

The device consists, essentially, of a design or pattern or similar object and a transparent medium interposed between the point of vision and the design or other object to be viewed, having its surface adjacent to the design or pattern undulatory or salient, one of said elements being preferably movably mounted relatively to the other. In the present case the transparent medium is stationary or fixed, the design or pattern being mounted for movement, whereby when the latter is operated and is seen through the transparent medium (which may be of glass) said design will be given a fanciful, grotesque, or distorted appearance, in accordance with its nature and the character or formation of the transparent medium adjacent thereto.

The design in the present case consists of a web or strip of material having on its face next to the transparent medium a plurality of colors composed of a series of stripes, each of a color different from the adjacent one and obliquely disposed relatively to its direction of movement.

The transparent medium consists, preferably, of a plurality of cylindrical rods or bars of glass disposed side by side of any desired number or size.

When a moving design of the character specified is viewed through an individual bar or cylinder of the series, the representation seen, by reason of the refraction of the light, is apparently that of a moving or winding spiral or sinuosity of many colors traveling up and down, and it also appears as if the rod

of the transparent medium were axially rotating.

For the purpose of enhancing the beauty of the design the obliquely-disposed color-bands are arranged in two sets transversely disposed to each other and alternating, so that when such a design is observed through any one of the series of rods or bars the effect will be apparently to produce two moving spirals of many colors approaching and receding from each other in opposite directions.

When the design as a whole is viewed through the entire series of bars, a kaleidoscopic and beautiful effect is obtained.

In the drawings accompanying and forming part of this specification, Figure 1 is a perspective view of my device and illustrates the same in its preferred form. Fig. 2 is a plan view with a portion broken away. Fig. 3 is a transverse central section. Fig. 4 is a longitudinal central section, and Fig. 5 is a detail in plan of the design.

Similar characters designate like parts in all the figures of the drawings.

The device comprehends as a part thereof a frame for supporting the several parts, which frame may be of any desired form or preferred construction.

The frame illustrated is designated by F, and it consists of a box-like structure of convenient shape constructed of suitable material. The outer side 2 of the frame has a comparatively large aperture or sight-opening 3, next to which the transparent medium is situated.

The design or pattern, as hereinbefore set forth, may be of any suitable or convenient form, that shown consisting of a web D of suitable material—such as cloth, celluloid, or paper—upon which may be painted, printed, or otherwise formed any desired representation to be viewed.

The web D is mounted for movement relatively to the transparent medium and is operated in some suitable manner, as will hereinafter appear. The web D may be supported in any suitable manner, it being illustrated as passed around the supporting-rolls 4 and 5, the shafts 6 and 7 of which are jour-

naled in the opposite longitudinal end walls 8 and 9 of the frame F, and one of said rolls constitutes the power-roll. The outer face of the web D (shown for purposes of illustration) has a series of stripes of color, which may be of any suitable shade or number, obliquely formed thereon with respect to its line of travel.

For the purpose of enhancing the effect produced on the movement of the design the obliquely-formed stripes are arranged in two sets disposed in alternation transversely to each other, the stripes of one set being designated by *a* and the stripes of the other set by *b*. (See Fig. 5.)

The transparent medium, as hereinbefore stated, is constructed of glass or other suitable material, and the portion thereof adjacent to the design or web D is made undulatory, as shown in Fig. 4. Said transparent medium is indicated by T, and it is shown consisting of a multiplicity of solid cylindrical rods or bars 10, constituting lenses (although it may consist of a single rod) disposed side by side and suitably mounted between the design and the point of vision, whereby when the design is in action the effects hereinbefore stated will be produced on looking through the series of bars. Said bars are shown fitted against the outer side 2 of the box or frame and held in place by a series of flanged strips, as 12, 13, 14, and 15, the strips 12 and 13 being suitably secured to the opposite longitudinal sides 8 and 9 of the frame and the series of bars 10 resting on the flanges thereof, as shown in Fig. 3, while the flanges of the strips 14 and 15 are secured to said end walls and the outermost bars of the series rest against the same, so as to prevent displacement and bodily lateral movement of the several bars.

Any convenient form of motor or driving device may be employed for operating the design or web D to move it across the line of vision. As a convenient means for thus driving the web D the shaft 6 of the roll 4 is furnished with a crank 16, the handle 17 of which can be grasped to turn said roll, thereby to move the design or web in either direction.

It will be observed that the back of the frame or case F (see Fig. 3) is open, and in virtue of this construction it will be obvious that if said frame or case be sustained between the eye and the light, either natural or artificial, a multiple or enhanced effect will be produced when the band with the variegated stripes or colors or other design thereon is moved behind the glass rods or lenses D.

The runs of the endless band being made of transparent material the rays of light will pass through the same and being refracted by the lenses will produce a brilliant chromatic effect, the colors seemingly chasing themselves along the surfaces of the lenses and moving in opposite directions, one shade of

each color being of a different hue from that of the other. By this arrangement not only is the effect heretofore described produced, but the additional result is accomplished, inexplicable as it may seem, of a series of colors running longitudinally along the lenses, one seeming as if behind another, and the whole forming an ensemble both beautiful and apparently, with regard to appearance and color, as if the rods were actually rotating in one direction and then in the other direction and as if a series of variations in color were moving in reverse directions up and down the cylindrical lenses, one shade of the same color following the other and apparently traveling in an opposite path to that taken by the primary shade of the same color. It is apparent that the outside of the frame or box F can be ornamented to any desired extent either pictorially or with business advertisements. It is obvious also that the series of rods or bars 10 may be formed in a sheet or a single piece and that they may be variously arranged in the frame and that it is not necessary that they should be solid to produce the effects noted nor that the design should be on an endless web, as these features of construction may be variously changed without departing from the spirit of my invention. I therefore desire it distinctly to be understood that my invention is neither limited to the design shown, to the particular transparent medium illustrated, nor to any specific arrangement of the parts of said transparent medium, for, as is obvious, my invention contemplates either one or a series of cylinders or other suitable transparent media and this, too, whether arranged perpendicularly or at any desired angle to the frame.

Having described my invention, I claim—

1. A device of the class specified embodying a frame; a web mounted for movement and having a series of stripes obliquely formed relatively to the line of travel of the web; and a series of disconnected lenses situated between the web and the point of vision.

2. A device of the class specified embodying an open-backed frame; a continuous web mounted for movement and having a design thereon composed of oblique stripes; and a transparent medium situated between the web and the point of vision.

3. A device of the class specified embodying an open-backed frame and an endless web mounted for movement and having a series of colored stripes obliquely formed with relation to the line of movement of said web and arranged in sets, one of said sets being transverse to the other, and a transparent medium situated between the web and the point of vision.

4. A device of the class specified embodying a frame; a web mounted for movement and having a series of colored stripes obliquely formed relatively to the line of travel of the

web; and a plurality of glass bars disposed between the web and the point of vision.

5. A device of the class specified embodying a frame; an endless web mounted for movement and having a series of colored stripes obliquely formed relatively to the line of travel of the web; and a plurality of glass bars disposed between the web and point of vision.

10. 6. A device of the class specified embodying a frame; a movable web having a series of colored stripes obliquely disposed with relation to the line of movement of said web and arranged in sets, one of said sets being transverse to the other; and a plurality of glass rods or bars between the web and the point of vision.

7. A device of the class specified embodying a frame having a sight-opening; rolls carried by the frame; a web passed around said rolls and having colored stripes thereon; and a plurality of glass rods or bars carried by the

frame between the design and the point of vision.

8. A device of the class specified embodying a frame; rolls carried by the frame; a web passed around said rolls and having colored stripes thereon; a motor for driving one of the rolls; a plurality of glass rods or bars supported by the frame between the design and the point of vision; and a series of strips secured to the frame, for holding said rods or bars in position.

9. A device of the class specified embodying a frame; a movable design having a series of colored stripes obliquely formed relatively to the line of travel of said design; and a plurality of separate or disconnected lenses located side by side and situated between the design and the point of vision.

THEODORE HOLLANDER.

Witnesses:

WM. H. BLODGETT,
GEO. A. HOFFMAN.