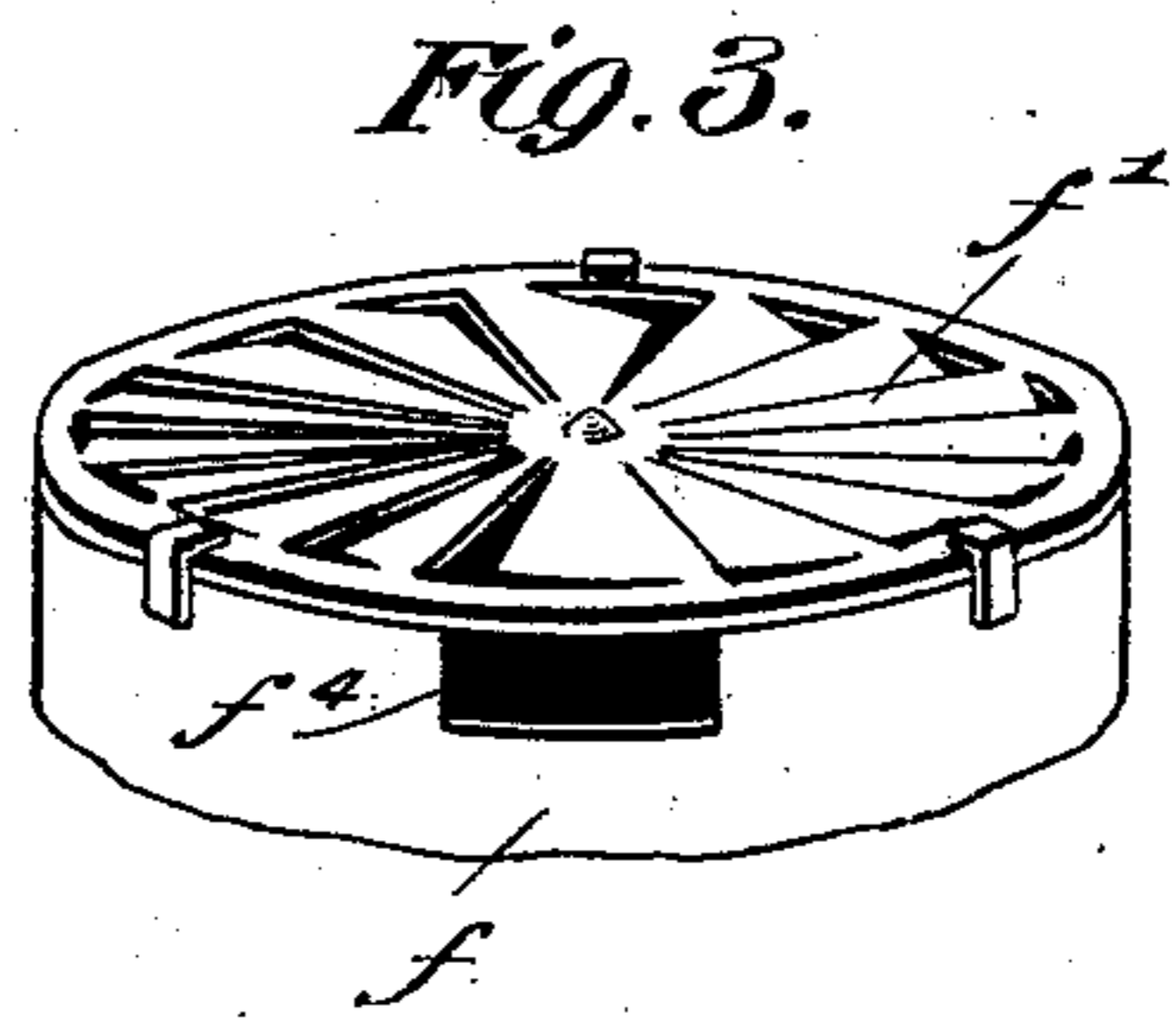
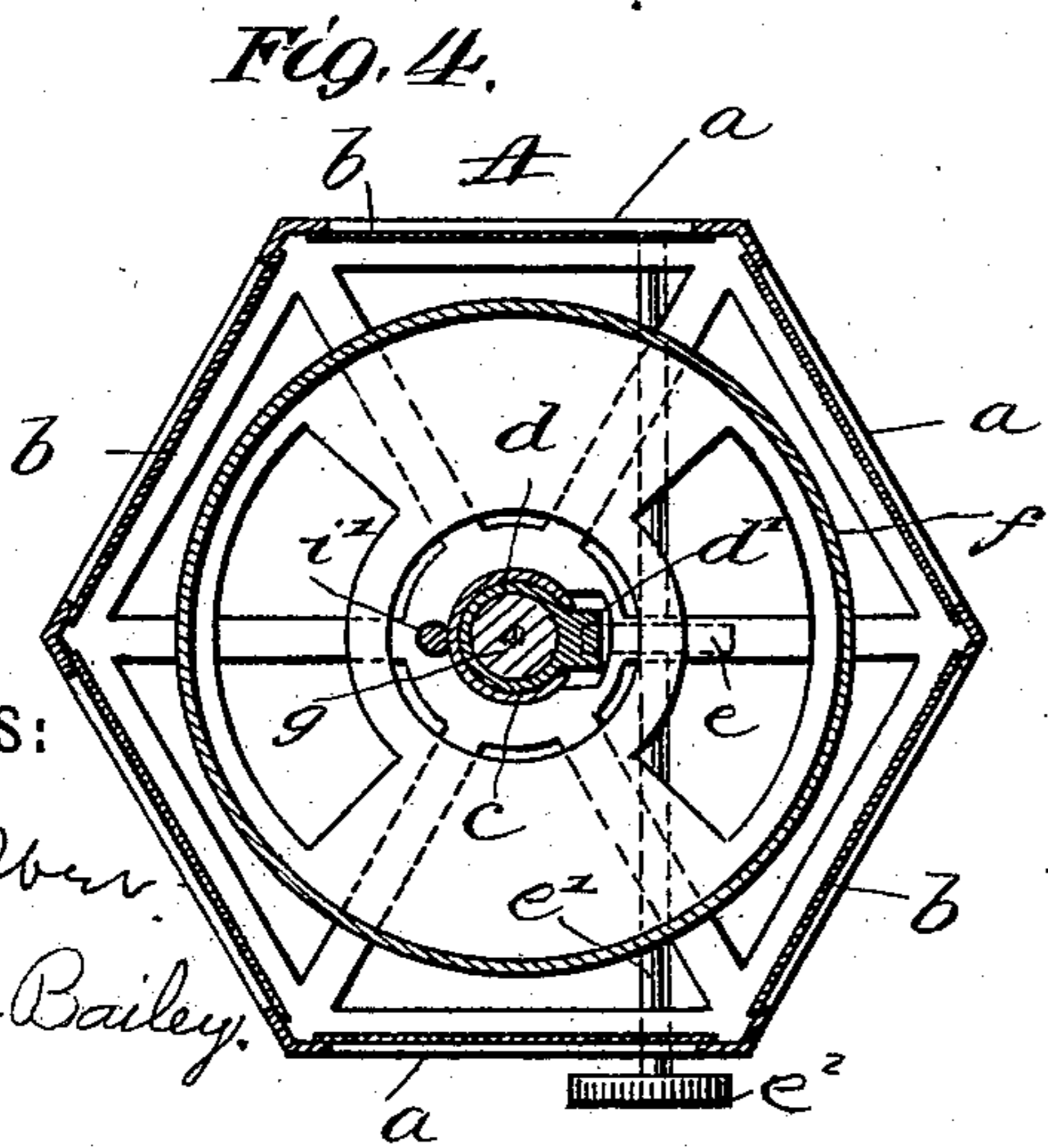
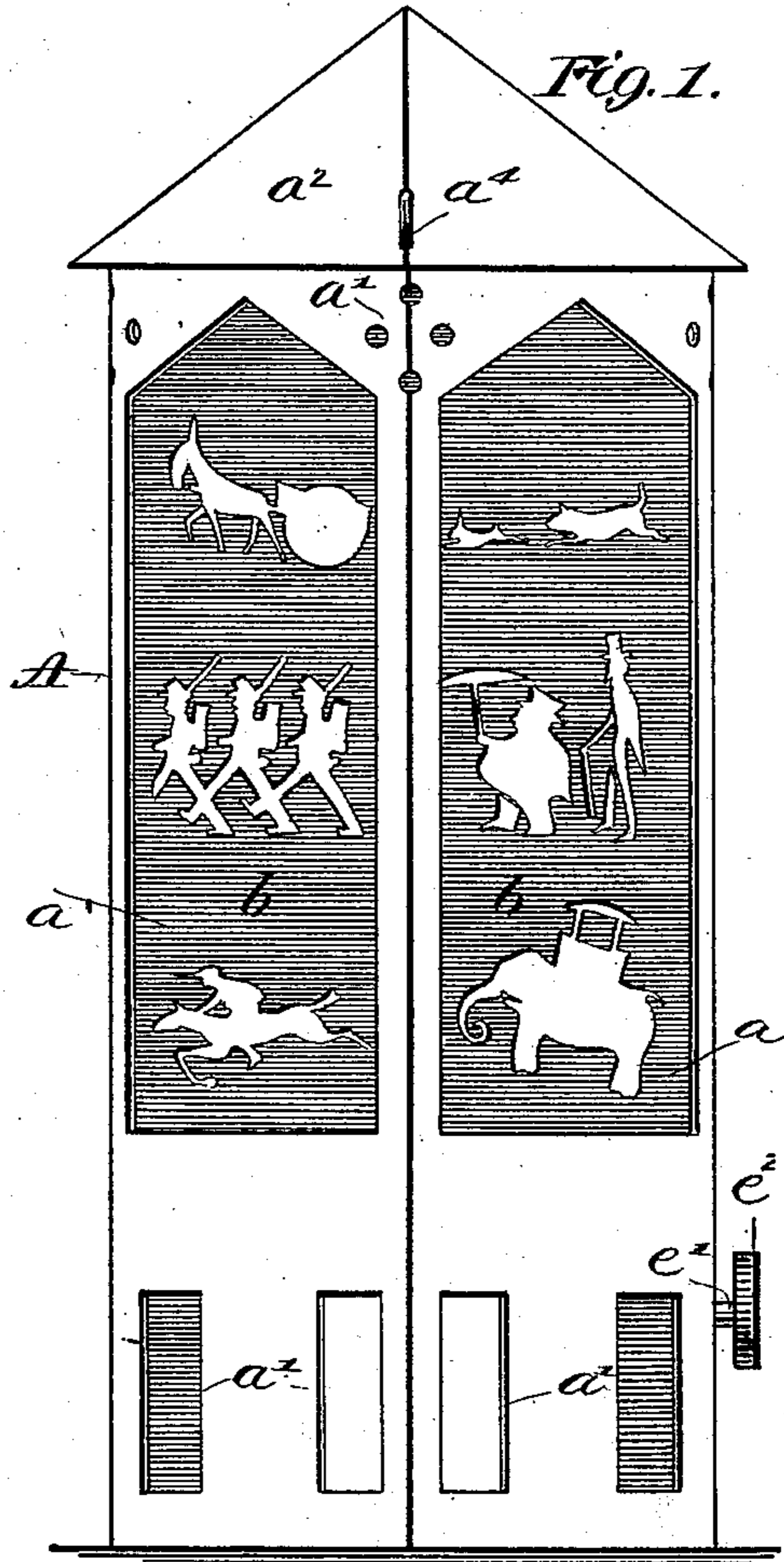
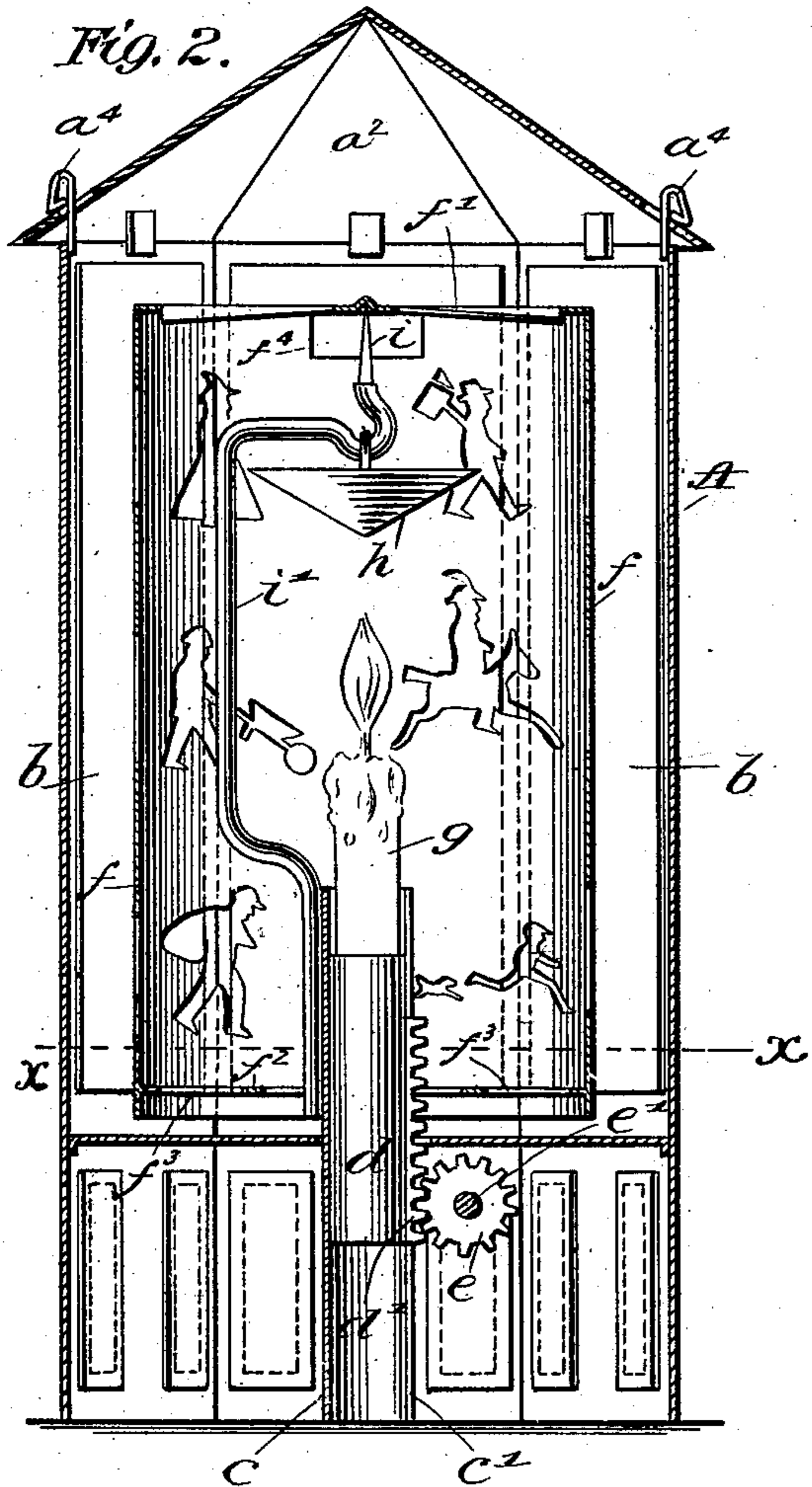


(No Model.)

F. E. HENKE.
TOY.

No. 589,173.

Patented Aug. 31, 1897.



WITNESSES:

Paul S. Ober.
Harry Bailey.

INVENTOR

Frederick E. Henke

BY

Wm. A. Rosenbloom

ATTORNEY

UNITED STATES PATENT OFFICE.

FREDERICK E. HENKE, OF LINDENHURST, NEW YORK.

TOY.

SPECIFICATION forming part of Letters Patent No. 589,173, dated August 31, 1897.

Application filed October 21, 1896. Serial No. 609,494. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. HENKE, a citizen of the United States, residing at Lindenhurst, in the county of Suffolk and State of New York, have invented certain new and useful Improvements in Toys, of which the following is a full, clear, and exact description.

This invention is an apparatus which may be used as a toy, and also for advertising and exhibition purposes.

The device has the appearance of a miniature kiosk or booth provided with screens which cover the windows and with means inside whereby illuminated continuously-moving figures or characters are made visible externally upon the screen.

The invention consists of the apparatus hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of the apparatus. Fig. 2 is a vertical central section of the same. Fig. 3 is a perspective view of the pattern-cylinder. Fig. 4 is a horizontal section taken on line $x x$ of Fig. 2, looking downward.

Referring to the drawings by letter, A is a structure or frame, preferably made in some fanciful design and representing a small house, booth, or kiosk having one or more openings a for windows and other small openings a' above and below for ornamental purposes. The structure is preferably made with four or more sides, six being shown in the drawings for a purpose which will hereinafter appear, and it will be surmounted by a roof a^2 , under the eaves of which an open space will be left to permit a draft of air passing through. The roof is held in place by springs a^4 , which pass through slots therein. In each of the windows a is placed a screen b , of paper, linen, ground glass, or other suitable material, upon which may be seen from the outside a figure or character projected by a ray of light from the inside. For economy thin paper may be used, and it will preferably be stretched across the windows and secured to the edges of the frame. I also prefer to make the screens in the various windows of different colors to obtain more pleasing effects. The small openings a' will also be covered with sheets of translucent material of various colors, so that when struck by light from the inside they will illuminate and

define their various shapes. Inside of the structure and supported vertically at the center thereof is a tube c , having a slot c' on one side and into which a candle-holder d fits and is adapted to move. The candle-holder is provided with a rack d' , which projects through the slot in the side of the tube and engages with a pinion e on a shaft e' , extending transversely through the outer frame and fitted with a hand-wheel e^2 , by which the candle may be raised or lowered.

f represents what I have called the "pattern-cylinder." It consists of a cylinder of paper, tin, or other sheet material detachably connected at the top with the rim of a propeller f' . Across the bottom of the cylinder is placed a diaphragm f^2 , having openings f^3 , through which the light from the candle may pass. The cylinder and propeller are mounted concentrically with the candle g upon a steel point i , carried at the upper end of a bent wire i' , the wire being fixed to the tube c . A metal cone h is supported by the wire i' in an inverted position directly above the candle flame and serves as a deflector to throw the heat rising therefrom outward to the extremities of the propeller-blades. In the pattern-cylinder figures of persons, animals, letters, characters, or designs are cut out, permitting the light from the candle to pass through. These figures may be arranged in horizontal rows or in any desired order, or disorder, to produce certain effects.

The apparatus in operation gives the best effects in a darkened room, and to start it in operation the candle is lighted and set into place, as shown in the drawings. The structure is then placed upon a table or other support, where it may rest without undue jarring, and immediately the heat rising from the flame and creating a draft upward through the propeller causes the pattern-cylinder to slowly revolve. At the same time the light from the candle projects through the figures in the pattern-cylinder and falls upon the screens in the windows a , thus defining by illumination the various shapes that are formed in the pattern-cylinder, which pass in an endless procession across the windows. If, as before mentioned, the screens are of different colors, the figures as they move from one window to another will correspondingly

change color, and thus produce a pleasing effect. The outer structure being formed with sides at angles, while the patterns are on a cylinder, causes the figures to dip and rise as they pass from the screen in one wall to that in the next. This curious feature is particularly interesting when horses or other animals in the pose of running are depicted, for they appear to be jumping.

As an advertising device the invention will be very simple and effective. The advertisement may be stamped in the pattern-disk, and may be read successively on the different screens. Around the upper edge of the pattern-cylinder a number of plain openings f^4 may be formed, which as the cylinder revolves alternately cuts the light on and off from the openings above the windows. The same effects are produced at the openings a' at the bottom of the structure by means of the openings in the horizontal diaphragm f^2 . The draft after striking the propeller leads out under the eaves of the roof of the structure. The pattern-cylinder is made detachable from the propeller, so that other cylin-

ders with different designs or advertisements may be used.

Having thus described my invention, I claim—

A toy or advertising device consisting of a structure or frame provided with two horizontal rows of windows covered by screens, in combination with a pattern-cylinder located inside said frame and directly opposite one row of windows, the lower end of said pattern-cylinder having a transverse diaphragm provided with openings, a source of light and heat inside of said cylinder, and means whereby the heat from said source will rotate said cylinder, whereby moving images will be caused to move successively across the screen in both of said rows, substantially as described.

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

FREDERICK E. HENKE.

Witnesses:

FRANK S. OBER,
HARRY BAILEY.