W. R. FEARN.

KALEIDOSCOPE.

APPLICATION FILED DEC. 29, 1919.

1,394,480.

Patented Oct. 18, 1921.

2 SHEETS—SHEET 1.

Fig. 1.

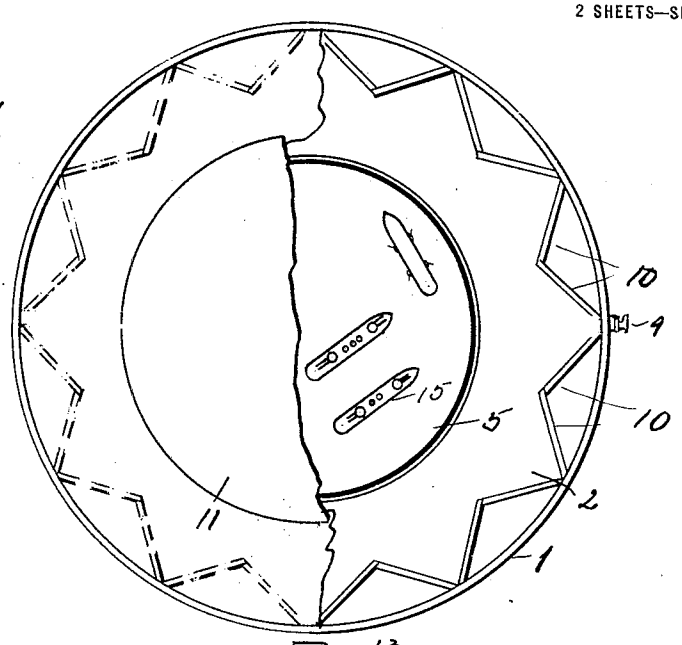
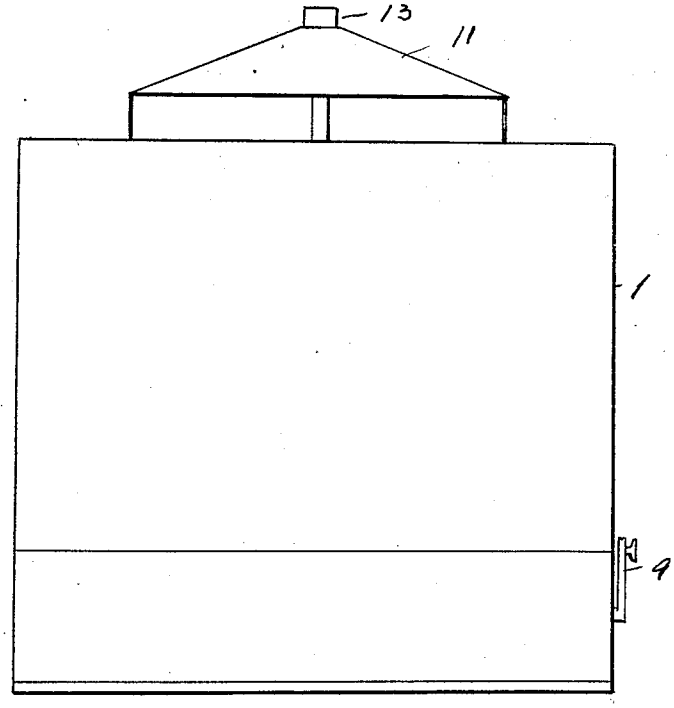


Fig. 2.



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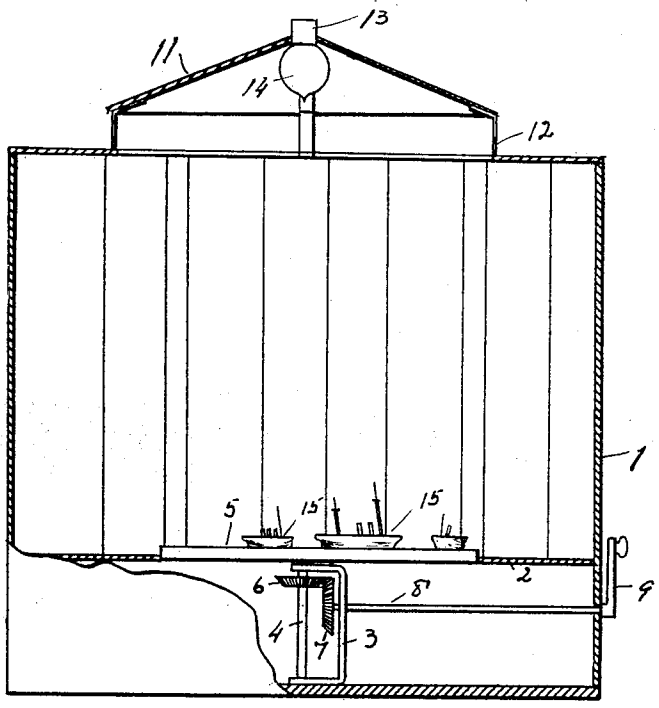


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM R. FEARN, OF CAMDEN, NEW JERSEY.

KALEIDOSCOPE.

1,394,480. Specification of Letters Patent. Patented Oct. 18, 1921.

Application filed December 29, 1919. Serial No. 348,174.

To all whom it may concern:

Be it known that I, WILLIAM R. FEARN, a citizen of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented new and useful Improvements in Kaleidoscopes, of which the following is a specification.

My invention relates to a new and useful improvement in kaleidoscopes, and has for its object to provide a highly amusing and instructive device which by utilizing a series of mirrors set at the proper angles relatively few figures may be multiplied many times by revolving said figures giving the reflections thereto the appearance of traveling in different directions and intermingling with each other.

A further object of my invention is to provide for the revolving of said figures.

A still further object of my invention is to provide for the proper projection of light from a lamp upon said figures to obstruct the vision of persons looking into the device in such manner that the reflections of the figures are principally visible.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains, may understand how to make and use the same, I will describe its construction in detail, referring by numerals to the accompanying drawings forming a part of this application, in which:—

Figure 1, is a plan view the hood being partly broken away to show more clearly the interior thereof.

Fig. 2, is a side elevation of Fig. 1.

Fig. 3, is a view similar to Fig. 2 the side walls being largely broken away and sectioned to show the mechanism of the device.

In carrying out my invention as here embodied, 1 represents the body of the device open at its upper end which as here shown is cylindrical in shape having a floor or partition 2 dividing the upper portion from the lower portion thereof and in this lower division or compartment is located a bracket 3 in which is journaled the upright spindle or shaft 4 carrying at its upper end the turn table 5 and having secured thereon the beveled gear 6.

7 represents a beveled gear which meshes with the beveled gear 6 and this bevel gear 7 is secured upon inner end of the shaft 8 which latter is journaled in the bracket 3 and the side wall of the body.

Upon the outer end of the shaft 8 is a crank handle 9 by which the shaft 8 may be revolved which in turn will revolve the shaft 4 and consequently the turn table 5.

10 represents a series of mirrors set at angles around the inner circumference of the body above the partition 2 and these mirrors are set at such angles as to produce the general effect of a star as clearly shown in Fig. 1.

11 represents a hood which is mounted upon the body of the device by suitable brackets 12 the outer edge of said hood terminating at a distance from the upper edge of the body so as to permit a person to look into the device at an angle and prevent said person looking straight downward therein and in the apex of this hood is secured a lamp socket 13 carrying the lamp 14 the underside of the hood serving as a reflector to deflect the rays of said lamp downward upon the turn table.

The turn table has mounted thereon a series of figures 15 here shown as vessels of different type, but of course these figures may represent persons or animals or such devices as fancy may elect.

From the foregoing description the operation of my kaleidoscope will be obviously as follows;—

The revolving of the crank handle causing the turn table and the figures thereon to revolve will produce the innumerable reflections of these figures in the mirrors and on account of the angles of the mirrors they will give to the reflections, the appearance of traveling back and forth and intertwining upon each other and a person looking into the device as before described will be greatly amused and interested and instructed by the animated effect.

While I have here shown the device in cylindrical form and as being operated by a crank shaft it is obvious that the body may be of any desired shape and that the turn table may be revolved by electric motor or other power and that the device may be made of any size. I therefore do not wish to limit my invention to the exact details of construction as herein shown as these may be varied within the limits of the appended claims.

Having thus fully described my invention, what I claim as new and useful is:—

1. A kaleidoscope comprising a body open at its upper end, a hood mounted on said body and disposed across the opening, said hood being spaced from the top of the body to permit an angular view of the interior of the body, a series of mirrors within the body disposed at angles to each other within a circle and producing the general effect of a star in horizontal cross section and a lamp mounted in the center of the hood above the common center of the series of mirrors.

2. A kaleidoscope comprising a body open at its upper end, a hood mounted on said body and disposed across the opening, said hood being spaced from the body to permit an angular view of the interior of the body, a series of mirrors within the body disposed at angles to each other within a circle and producing the general effect of a star in horizontal cross section, a lamp mounted in the center of the hood above the common center of the series of mirrors, a turn table concentric with the series of mirrors and adapted to support certain figures and means for revolving said turntable.

In testimony whereof, I have hereunto affixed my signature.

WILLIAM R. FEARN.