No. 862,438. PATENTED AUG. 6, 1907.

S. BOEHM.

APPARATUS WHEREBY TO PRODUCE DESIGNS.

APPLICATION FILED APR. 10, 1907.

FIG. I.

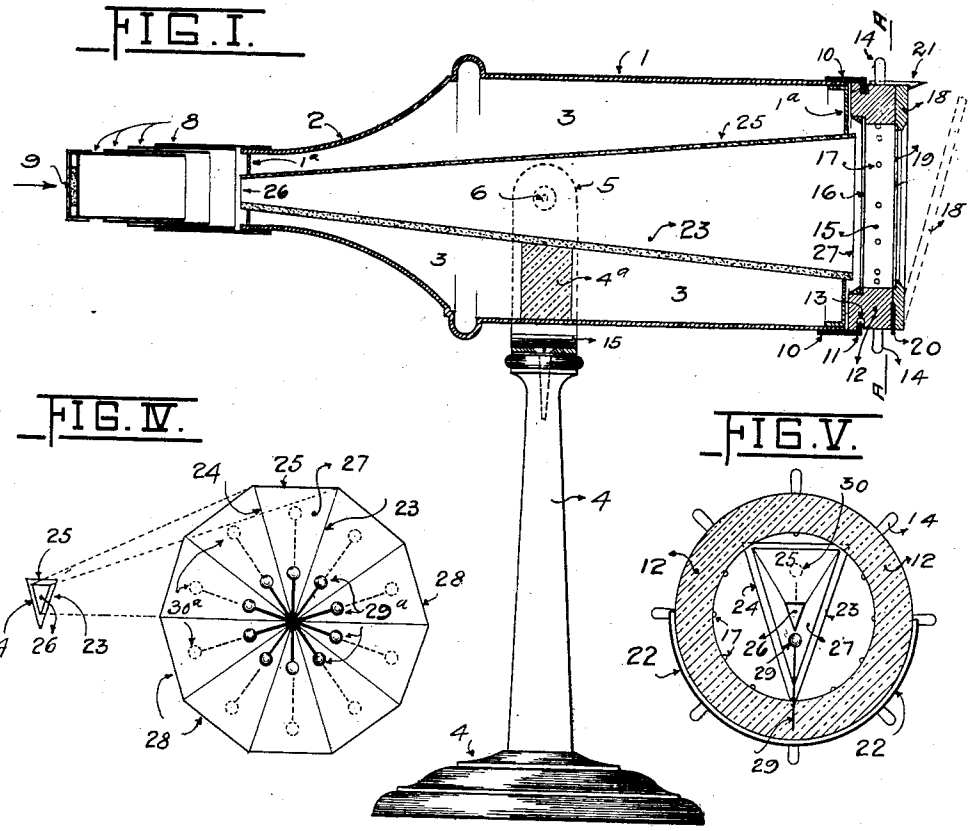


FIG. IV.

FIG. V.

FIG. II.

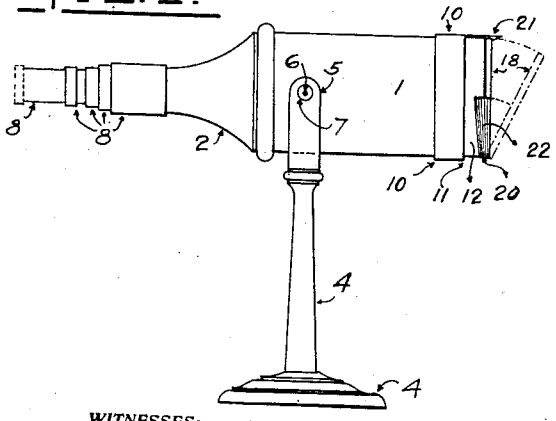
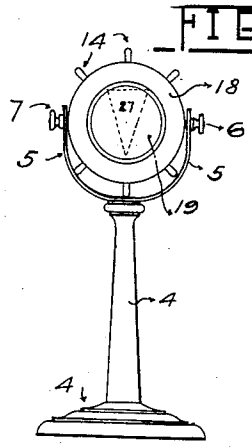


FIG. III.



WITNESSES:

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APPARATUS WHEREBY TO PRODUCE DESIGNS.

No. 862,438. Specification of Letters Patent. Patented Aug. 6, 1907.

Application filed April 10, 1907. Serial No. 367,338.

To all whom it may concern:

Be it known that I, SAMUEL BOEHM, a citizen of the United States, residing in Paterson, Passaic county, New Jersey, have invented certain new and useful Improvements in Apparatus Whereby to Produce Designs; and I do hereby 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention has for its object to provide an apparatus, useful in textile designing, etc., whereby various designs may be produced as suggestions for practically adapted designs and it consists in a kaleidoscopic apparatus so constructed as to make it especially useful for the purpose indicated especially.

My invention will be found fully illustrated in the accompanying drawings,

Figure I is a view of the apparatus, partly in side elevation and partly in vertical section; Fig. II is a view in side elevation on a smaller scale; Fig. III is a rear view on the same scale as Fig. II; Fig. IV is a diagrammatic view illustrating a design which would be produced from such an object as an ordinary pin; and, Fig. V is a transverse sectional view taken on the line *a*—*a* of Fig. I.

In the drawing, 1 is a cylinder having one end of substantially conical form, as at 2, and a wall 1^a secured in each end. Said cylinder is pivotally supported at 6 in the forked portion 5 of a pedestal 4, 7 designating thumb screws whereby when the position of the cylinder in its support has been adjusted to any angle desired it may be secured in that position.

Mounted in the walls 1^a are three tapering reflectors, 23, 24 and 25, disposed (viewed end wise) in the form of a triangle and supported midway by the part 4^a; the smaller end of the tapering tube thus produced by the reflectors is arranged in the wall 1^a at the reduced end of the cylinder.

Removably arranged on the larger end of the cylinder is a ring 10 having an internal flange 11, this flange serves as a support for the object holder now to be described.

12 is an annular casing having an external groove 13, which receives flange 11 of part 12 in such manner that casing 12 may rotate in the ring. The casing is provided internally at regular distances with knobs or projections 17, the purpose of which is to change the position of the object placed in the casing when the latter is rotated.

14 designates radial handles for rotating casing 12.

16 is a glass disk set in the inside face of casing 12.

18 is a cover hinged at 20 to the casing and having a disk 19 of ground-glass set therein; the cover 18 may be held closed by a spring catch 21.

Upon opening the cover, the object or objects which are to form the design may be placed in the casing, whereupon the cover is secured in its closed position to hold the object in place; in order to prevent the object's falling from the apparatus I provide a fluted piece of fabric 22, which extends approximately one half way round the casing at its hinging side; the casing is opened when the hinge is down, so if the objects fall from the casing, they are caught by the pocket formed by said fluted fabric.

In order to magnify the design, I provide the telescope 8 having the lens 9, the larger sleeve of the telescope being removably arranged on the reduced end of the cylinder, as best seen in Fig. I.

Upon placing in the casing any object, such as the pin 29, which is shown as stuck into the material of the casing in a radial position, and looking through the apparatus from the lens end thereof, a design, similar in character to that shown in Fig. IV, will appear. For instance, in Fig. V, the primary reflection of pin 29 is shown by the dotted outline 30; in Fig. IV, where a design having a pentagonal outline 28 appears, 29^a designates the parts of the design corresponding to the reflections of the pin 29, 27′ the parts of the design corresponding to the reflections of the faces 27 of the reflectors 23, 24 and 25, and 30^a the parts of said design corresponding to the reflections of reflections 29^a of the pin, the object is free to move in the casing and the casing is turned, the design will change according to the change of position effected with respect to the object.

Having thus fully described my invention, what I claim and desire to secure by Letters Patent is:

1. The combination of a pedestal having a forked upper portion, a cylinder having one end reduced and being adjustably pivoted in the forked upper end of said pedestal, a tapering reflector tube arranged in said cylinder, and a casing revolubly arranged at the larger end of said cylinder and having light admitting disks forming with said casing a holder for the object or objects from which to produce the design, substantially as described.

2. The combination of a cylinder having one end reduced, a tapering reflector tube arranged in said cylinder, an internally flanged ring attached to the other end of said cylinder, an externally grooved casing revolubly arranged in said ring and having the flange of said ring projecting into its groove, said casing having light admitting disks forming with said casing a holder for the object or objects from which to produce the design, and means for supporting said cylinder, substantially as described.

3. The combination of a cylinder having one end reduced, a tapering reflector tube arranged in said cylinder, an internally flanged ring removably attached to the other end of said cylinder, an externally grooved casing revolubly arranged in said ring and having the flange of said ring projecting into its groove, said casing having light admitting disks forming with said casing a holder for the object

or objects from which to produce the design, and a telescope removably attached to the reduced end of said cylinder, substantially as described.

4. The combination of a cylinder having one end reduced, a tapering reflector tube arranged in said cylinder, an internally flanged ring removably attached to the other end of said cylinder, an externally grooved casing revolubly arranged in said ring and having the flange of said ring projecting into said groove, said casing having a hinged cover and light admitting disks, arranged one in said cover, forming with said casing a holder for the object or objects from which to produce the design, and a fluted pocket attached to said casing over the joint of the cover thereof and extending substantially halfway around the casing, substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand this 8th day of April, 1907.

SAMUEL BOEHM.

Witnesses:
WM. D. BELL,
JOHN W. STEWARD.