

H. HARROLD.
ILLUMINATED ADVERTISING DEVICE.
APPLICATION FILED JULY 12, 1912.

1,066,493.

Patented July 8, 1913.

2 SHEETS—SHEET 1.

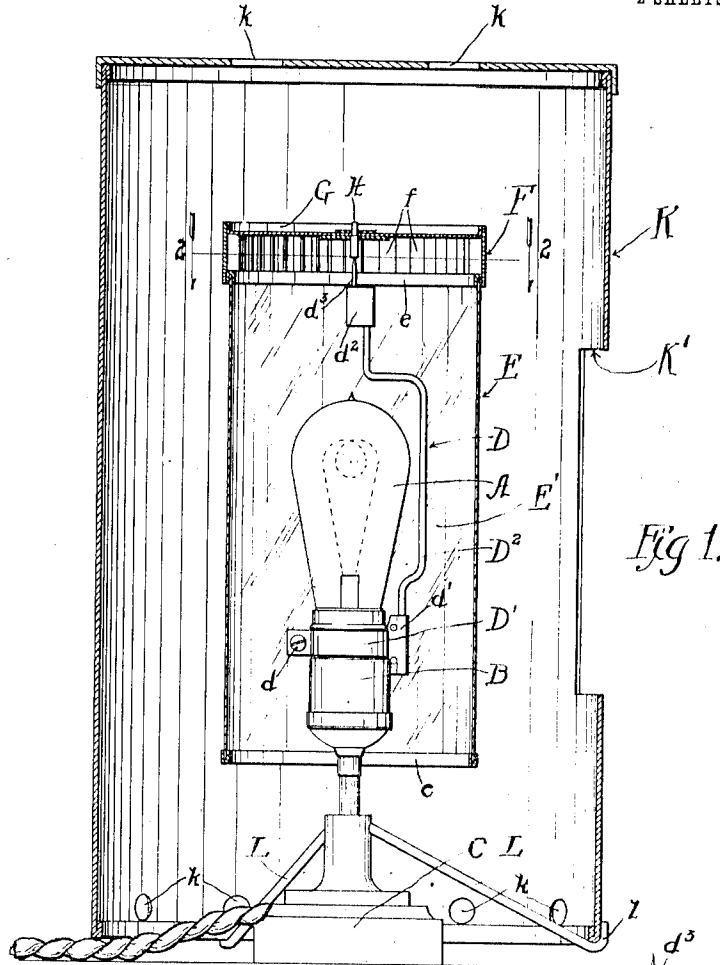


Fig. 1.

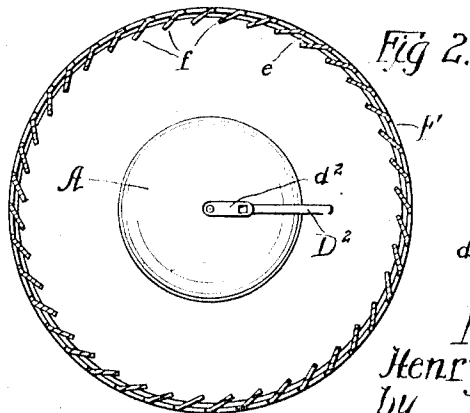


Fig. 2.

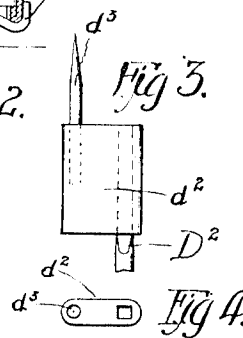


Fig. 3.



Fig. 4.

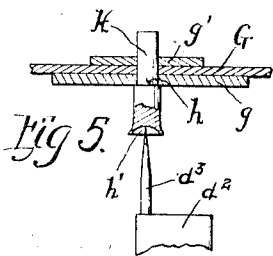


Fig. 5.

Witnesses:
P. H. Poole
Charles A. Poole

Inventor:
Henry Harrold.
By Poole & Crowner.
Attys.

H. HARROLD.
ILLUMINATED ADVERTISING DEVICE.
APPLICATION FILED JULY 12, 1912.

1,066,493.

Patented July 8, 1913.

2 SHEETS—SHEET 2.

Fig. 8.

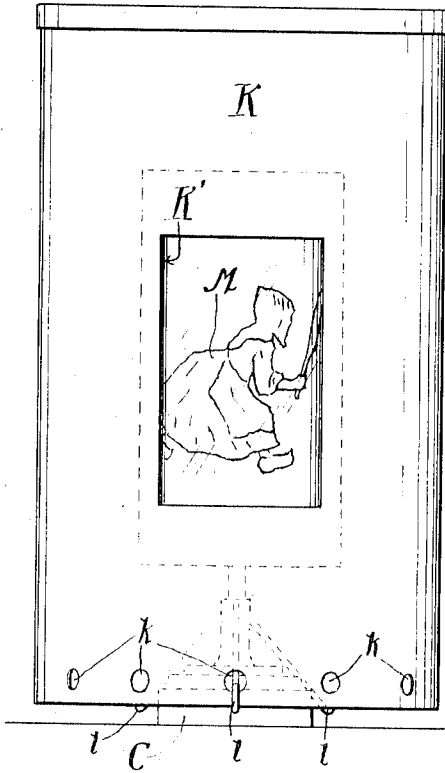
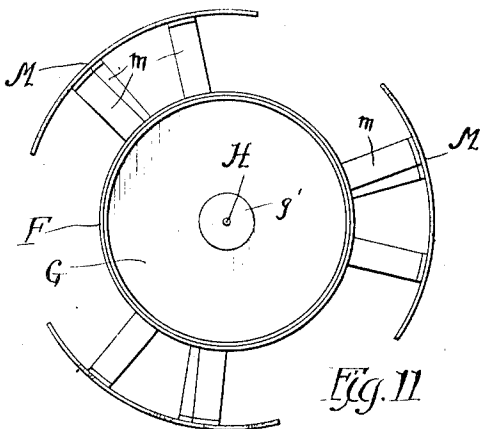


Fig. 11

Witnesses:
P. H. Poole
Chas. Poole.

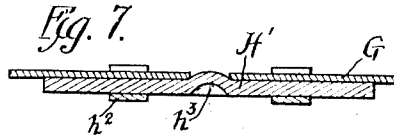
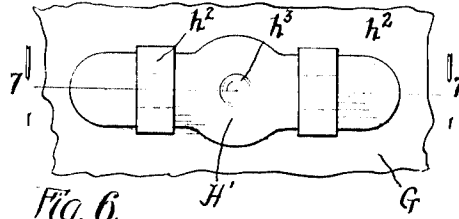


Fig. 6.

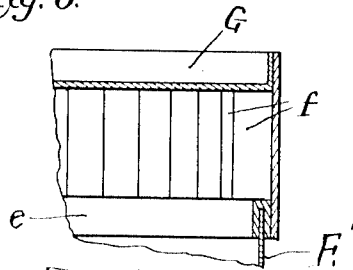


Fig. 9.

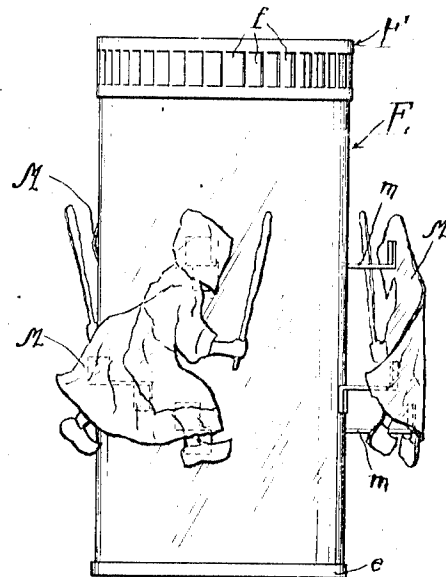


Fig. 10

Inventor:
Henry Harrold.
by Poole & Brower
Attys

UNITED STATES PATENT OFFICE.

HENRY HARROLD, OF CHICAGO, ILLINOIS.

ILLUMINATED ADVERTISING DEVICE.

1,066,493.

Specification of Letters Patent.

Patented July 8, 1913.

Application filed July 12, 1912. Serial No. 706,956.

To all whom it may concern:

Be it known that I, HENRY HARROLD, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Illuminated Advertising Devices; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in illuminated advertising devices and more particularly to that class of advertising devices characterized by a cylindrical shell of transparent or translucent material surrounding an incandescent lamp and rotatively mounted on a vertical axis in such manner that the cylindrical shell will be given rotative movement by the action of the upwardly moving current of air, produced by the heat radiated from the lamp; and the whole being surrounded by an opaque casing having an aperture or a plurality of apertures in the wall thereof, through which the inner cylinder may be viewed.

The object of this invention is to improve the construction of such devices in several particulars, and to provide an inexpensive, simple and attractive device suitable for advertising purposes.

The invention consists in the matters hereinafter described and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a vertical, cross sectional view of the device with parts in elevation; Fig. 2 is a cross sectional view taken on line 2—2 of Fig. 1; Fig. 3 is a detail view in elevation of the needle-holder; Fig. 4 is a top view of the needle-holder; Fig. 5 is a detail view of the bearing and needle; Fig. 6 is a view in elevation of a modified form of bearing; Fig. 7 is a cross sectional view taken on line 7—7 of Fig. 6; Fig. 8 is a view in side elevation of the device showing one of the figures mounted upon the inner cylinder; Fig. 9 is an enlarged cross sectional view of the impeller; Fig. 10 is a view in side elevation of the revolving cylinder, showing figures mounted at a distance from the surface thereof; and Fig. 11 is a top view of the cylinder shown in Fig. 10.

Referring to the drawings, an incandes-

cent lamp A and socket B therefor are supported in a vertical position by means of a standard C. Mounted upon the lamp socket is a supporting bracket D comprising a removable clamp D' adapted to surround said socket and held thereon by means of a clamping bolt *d*. Said clamp is provided with a socket *d'*, adapted to receive one end of the supporting rod D², the same extending above the top of the lamp and being bent to pass around the lamp, and in such a manner that its upper extremity is parallel with and near the vertical axis of the lamp and standard. The upper extremity of said rod is made square in cross section and supports a needle-holder *d*², which latter is provided with a socket to receive the squared upper end of said rod, and is also provided with a socket adapted to receive a steel needle *d*³ like those used in the reproducers of phonographs. Supported and balanced upon said needle is the rotating shell E. Said shell comprises a lower part or body E' of translucent celluloid or similar material, having its lower and upper ends secured in channeled rings *e* of a light metal. Connected with the top of the body E' is an impeller F, having generally the form of a cylindrical sheet metal band or ring of substantially the same diameter as the top of the body E' and attached at its lower margin to the ring *e* at the top margin of the body E'. Extending about the circumference of said impeller is a plurality of inwardly extending impeller blades *f*, arranged obliquely with respect to radial lines of the impeller and in annular order, and formed integral with the metal band constituting the impeller. Said blades *f* are formed by cutting the metal along vertical lines at equal intervals about the circumference of the said metal band, and also making a series of horizontal incisions intersecting the upper and lower ends of the vertical cuts, and then bending the cut portions inwardly at an angle of approximately 45° to the circumference of said impeller, as clearly seen in Fig. 2. The impeller blades may be formed by cutting on lines oblique to the vertical axis of the cylinder with like results.

A flat disk or cover plate G is connected with the top margin of the ring or band constituting the impeller; the same being shown as having a marginal flange adapted to fit and to be held by friction or otherwise secured in place within the top of the said,

cylindric band. At the center of the cover plate G is located a bearing member H (Fig. 5). The said bearing member is cylindrical in shape and passes through and is secured in a central aperture, formed in the cover plate. Said bearing member is provided with a shoulder h , adapted to form a support for the cover plate. Washers g and g' are applied to said bearing member below and above the said cover plate G, the upper washer g' being secured to the bearing member. The lower extremity of the bearing member is enlarged and is provided with a downwardly facing concave bearing recess or surface h' , adapted to be engaged by the point of the needle d^3 . For this form of bearing member (Fig. 5) may be substituted the modified form of bearing member shown in Figs. 6 and 7, which comprises a flat plate H' secured to the inner surface of the cover plate by means of staples h^2 , which pass through the cover plate G, and the ends of which are bent over against said plate. A concave bearing surface h^3 , similar to that shown in Fig. 5, is formed in the central portion of the said bearing plate H' .

Upon the translucent body part E' of the shell E' are painted, printed or applied a plurality of similar fanciful figures M , M' , as shown in Fig. 8. Said figures will preferably be formed by pieces of sheet material, preferably varicolored celluloid or the like, secured to the outer face of the shell. If desired, said figures, so made of sheet material, may stand outwardly from the shell, as shown in Fig. 9, and may consist of celluloid, or other transparent or translucent material, colored or tinted as desired. In such case a suitable number of braces m are used to support the figures from the shell, the same having bent extremities adapted to be glued to the figures and to the surface of the shell. The figures may, furthermore, be replaced by letters, by representations of an article or articles to be advertised, or other attractive matter.

Inclosing the lamp, its standard and the revolving shell, is an outer sheet or casing K, preferably of an opaque material, and of any desirable shape. Said casing K is shown as constituting an enlarged reproduction of the cylindrical container for the article advertised. The casing K is supported concentrically with the axis of the lamp, by means of arms L rigidly secured at their inner ends to the lamp standard, and extending outwardly and downwardly therefrom. Said arms L are provided with hooked extremities l adapted to engage the lower edges of the said outer casing. A plurality of holes k are provided at the base and in the top of the outer shell, to permit the circulation of air therethrough. An aperture K' is provided in the cylindric wall of said outer shell or casing, so located

that only the figures on the inner, revolving shell E will be seen through said aperture, and of a width not so great as to cause the eye to follow the movement of the figures on the main shell as the latter rotates. Said outer casing may be provided with two or more such apertures, if desired.

The friction between the needle and the socket bearing is so slight that the main shell E is very easily rotated. Rotative motion is imparted to the said shell as follows: The heat radiated from the lighted lamp generates an upwardly moving current of air within the shell, the air at ordinary temperature, entering at the base of the cylinder, being heated as it passes around the lamp. The only means of exit for such rising current of air, are the openings between the oblique blades, through which the air escapes in a radial direction from the top of the shell. In other words, the top of the shell being closed, except for the lateral openings between the blades of the impeller, all of the rising current of air is deflected horizontally outward and passes through said openings. The pressure or impact of the outwardly moving air, acting on the oblique faces of the said blades, acts to give rotative movement to the impeller and to the shell.

The entire device is so constructed that it may be easily taken apart for transportation and likewise easily assembled.

Realizing that the details of this device may be manufactured in various forms without departing from the spirit of the invention, I do not wish to be limited to the construction shown in the drawings, or as hereinbefore described, except so far as the same may be set forth in the appended claims as parts of my invention.

The advantage in this construction of the impeller in which the blades are located in the wall of the rotating cylinder, lies chiefly in the fact that they are at a maximum distance from the central axis, therefore, in a position to transmit the maximum turning movement to the cylinder. An additional advantage of this type of impeller is the lower cost of manufacture. Impeller blades for any number of cylinders may be formed in a single strip of metal, the strip divided into suitable lengths and bent into cylindrical bands. The said advantages of this construction are believed to constitute a distinct advantage over the usual form of impeller, which comprises a plurality of radially disposed blades cut in the top of the cylinder.

I claim as my invention—

1. In an advertising device, the combination with an incandescent lamp, a lamp socket and a standard, of a bracket removably mounted upon the lamp socket and provided above the lamp with an upright

needle, a shell rotatably mounted upon said needle, said shell comprising a body of translucent material and a cylindric sheet metal ring attached to the top of said body, a plurality of parallel impeller blades arranged circumferentially about said cylindric ring between its top and bottom margins, and an imperforate cover, attached to the upper margin of said ring and closing the top of the shell, said cover being provided at its center with a downwardly facing bearing adapted to engage said needle.

2. In an advertising device, the combination with an incandescent lamp, a lamp socket and a supporting standard, provided with a bearing member at its upper end, of a shell surrounding said lamp, said shell comprising a body portion of translucent material, a cylindric sheet metal ring, fitted upon the upper end of said body portion, and provided with a plurality of oblique impeller blades integral with said ring, and an imperforate cover plate having a flange integral therewith and adapted to engage the upper margin of said ring, and to close the top of said shell, said cover plate being provided with a downwardly facing concave bearing surface adapted to engage the said bearing member.

3. In an advertising device, the combination of an incandescent lamp, a lamp socket, a supporting standard provided with a bearing member at its upper end, a shell surrounding said lamp, said shell consisting of a lower body portion of translucent material and an impeller attached to the upper margin of said body portion and consisting of a cylindric, sheet metal ring attached at its lower margin to the upper

margin of the said body portion, said cylindric ring having between its upper and lower margins a plurality of integral impeller blades, an imperforate cover plate secured at its margin to the upper margin of said cylindric ring, and a downwardly facing concave bearing member centrally located on the said cover plate and adapted to engage the said bearing member.

4. In an advertising device, the combination of an incandescent lamp, a lamp socket, and a supporting standard provided with a bearing member in its upper end, a shell surrounding said lamp, said shell comprising a lower body portion of translucent material and an impeller secured to the top margin of said body portion and consisting of a cylindric, sheet metal ring provided between its top and bottom margins with a plurality of incisions extending transversely of the ring and other incisions intersecting the upper and lower ends of the transversely extending incisions, the parts severed by said incisions being bent at an angle to the circumference of the ring to form a plurality of impeller blades, an imperforate cover plate connected with the upper margin of said ring, and a downwardly facing concave bearing member centrally located on said cover plate and adapted to engage the said bearing member.

In testimony, that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 10th day of July A. D. 1912.

HENRY HARROLD.

Witnesses:

CHARLES H. POOLE,
EUGENE C. WANN.