A. V. GULLBORG.

ILLUMINATED ADVERTISING DEVICE.

APPLICATION FILED FEB. 23, 1918.

1,308,415. Patented July 1, 1919.

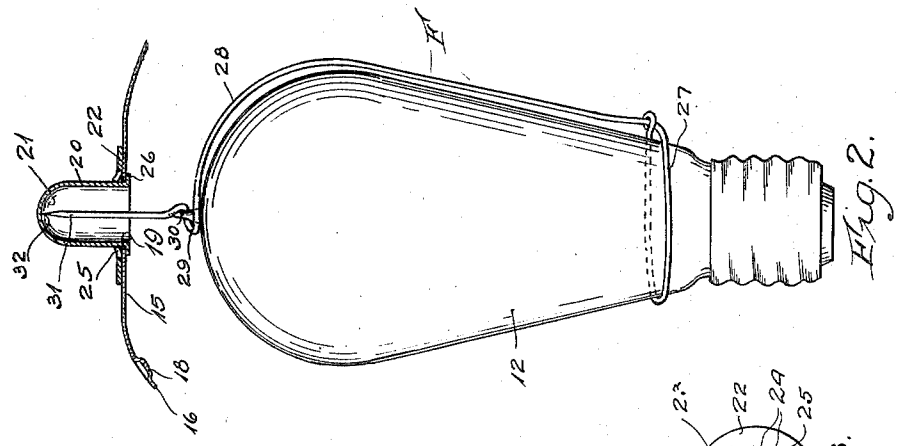


Fig. 2.

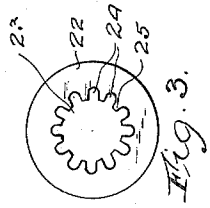


Fig. 3.

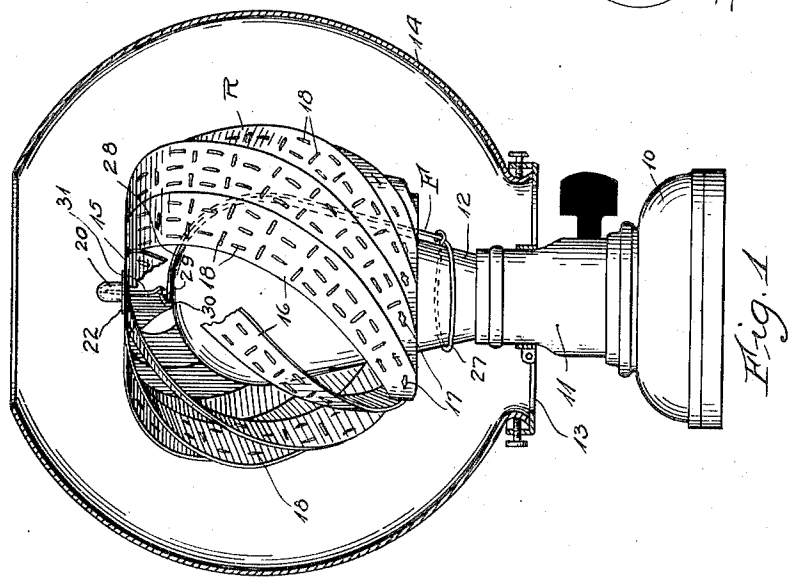


Fig. 1.

INVENTOR.
Arthur V. Gullborg
BY Charles J. Schmidt,
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ARTHUR V. GULLBORG, OF CHICAGO, ILLINOIS, ASSIGNOR TO COMMERCIAL UTILITIES MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ILLUMINATED ADVERTISING DEVICE.

1,308,415. Specification of Letters Patent. Patented July 1, 1919.

Application filed February 23, 1918. Serial No. 218,650.

To all whom it may concern:

Be it known that I, ARTHUR V. GULLBORG, 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, of which the following is a specification.

My invention relates to improved illuminated advertising devices and may be considered as an improvement in construction and arrangement over what is disclosed in United States Letters Patent No. 1,195,659, issued August 22, 1916, to Court and Goldberg.

The object of my invention is to provide improved construction for the rotor element which will simplify its construction and permit the use of thinner material to thereby reduce the cost of manufacture; to provide an improved bearing support for the rotor in the form of a wire frame detachably applied to the illuminating lamp; and to provide an improved bearing socket attachment for the rotor.

The various features of my invention are clearly disclosed on the accompanying drawing, in which

Figure 1 is a side elevational view of an illuminating device with the globe in diametral section.

Fig. 2 is an enlarged side elevational view of an electric lamp showing the rotor supporting frame applied thereto and the upper part of the rotor in diametral section applied to the frame, and

Fig. 3 is a plan view of a locking washer.

In the illuminating device shown, the base 10 supports the electrical terminal socket 11 in which is applied the electric lamp 12. A fixture frame 13 secured to the socket serves to support the globe 14. Surrounding the lamp and arranged to rotate around the axis thereof is a rotor element R, while F represents as a whole a wire frame detachably received by the lamp and affording pivot support for the rotor.

Describing the rotor, this, as disclosed in the patent referred to, is preferably constructed integral from transparent material such as celluloid or pyralin, a sheet of the material being cut to leave a central section 15 and vane members 16 radiating therefrom in spiral direction. These vane members are then curved downwardly and diagonally and their lower ends overlapped a distance, the end of one vane secured to the preceding vane preferably by rivets such as ordinary stationary rivets 17. In order to strengthen and stiffen the vanes indentations or corrugations 18 are formed thereon, and such stiffening and strengthening permits the use of lighter material and consequently materially reduces the cost.

The upper section 15 of the rotor has the central opening 19 through which is inserted the pivot thimble 20. In accordance with my invention this thimble is preferably of material such as glass and is of comparatively large diameter so that its concave surface 21 is of considerable extent and permits the rotor to readily balance itself on its pivot for frictionless and easy rotation when the lamp is lighted. In order to secure the pivot thimble to the rotor I provide a clamping or detent washer 22 whose construction is best shown in Fig. 3. This washer may be of fiber or similar material or of thin sheet metal and when stamped, the diameter of the circular main opening 23 is made slightly less than the outer diameter of the bearing thimble. The notches 24 cut to extend radially from this central opening leave tongues 25 which serve as detent prongs or projections for locking the thimble against displacement. Surrounding its inner edge the thimble has the flange 26 and the thimble is inserted until this flange engages with the top wall of the rotor and then the washer 22 is slipped down over the thimble against the outer side of the rotor top, the projections 25 being bent slightly upwardly during such application and will clamp the thimble and resist any inward movement tending to displace the flange 26 from the rotor top. The thimble is thus locked with its axis coincident with that of the rotor.

The supporting frame F for the rotor is formed from a single piece of wire bent at its lower end to form a loop 27 for receiving the lower end of the lamp, the diameter of the loop being such that it can move up only a short distance along the lamp bulb. Above the loop the wire follows the side of the lamp and has the bend 28 following the top of the lamp. At the upper end of the bend the wire is bent to form the circular loop or socket 29 for receiving the tip 30 of the lamp bulb, and from this loop extends

the vertical section 31 whose end 32 is pointed to receive the conical bearing surface 21 of the rotor supporting thimble, the engagement of this point with the glass causing practically no friction. The vertical end 31 is held by the frame F coincident with the axis of the lamp so that the rotor axis will coincide with that of the lamp and the rotor will therefore be evenly balanced against the upward heated air currents which cause its rotation. The frame F is constructed of more or less springy wire so that when the loop 27 is slipped up on the lamp and anchored the curved end 28 will tend to hold the loop or socket 29 securely around the lamp tip. After the loop 27 is applied upward pull on the end 31 will raise the loop 29 above and into alinement with the lamp tip so that when the end 31 is released this loop will seat against the lamp top and be held in place by the tip. The frame can readily be removed by pulling upwardly on the end 31 to clear the loop 29 from the tip. This wire frame F can be very cheaply constructed but makes a very efficient and secure support for the rotor.

I do not of course desire to be limited to the exact construction and arrangement shown and described as modifications might be made which would still come within the scope of the invention. I claim as follows:

1. The combination with an electric light bulb having the usual tip and having an intermediate section of frusto-conical shape, of a rotor supporting frame of springy wire having a loop at its lower end for encircling the frusto-conical section, a bend near the upper end of the frame forming a socket for receiving the bulb tip, the upper end of said frame extending vertically upward to form a bearing for a rotor, said loop tending to slip downward along the surface of said frusto-conical section whereby said frame is sprung to clamp the bulb with said socket in close engagement around said tip.

2. In a device of the class described, the combination with an electric light bulb positioned vertically with its tip extending upwardly, of a wire supporting frame having a loop at its lower end for encircling the lower part of the bulb, a bend near the upper part of said frame forming a small substantially closed loop for intimately receiving and surrounding the bulb tip, the upper end of said frame extending vertically substantially in alinement with the bulb axis, a rotor member provided with vanes and having a bearing thimble for receiving the upper end of said frame, and a washer surrounding said thimble and abutting against the outer surface of said rotor and having detent projections engaging with said thimble.

In witness whereof, I hereunto subscribe my name this 18th day of February, A. D. 1918.

ARTHUR V. GULLBORG.