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LAMP DIFFUSER FOR ELONGATED TUBULAR LAMPS

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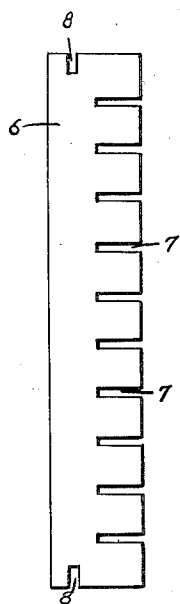
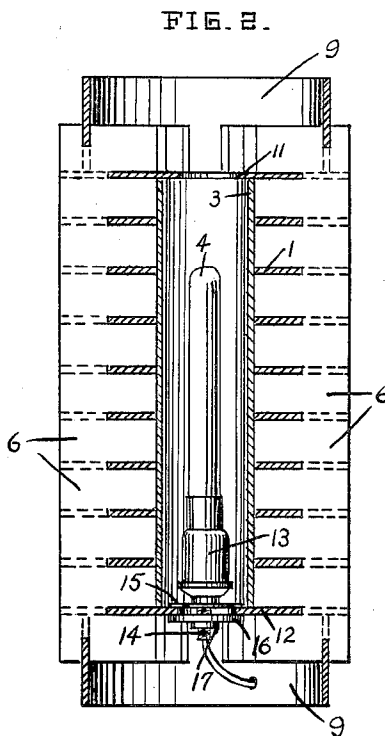
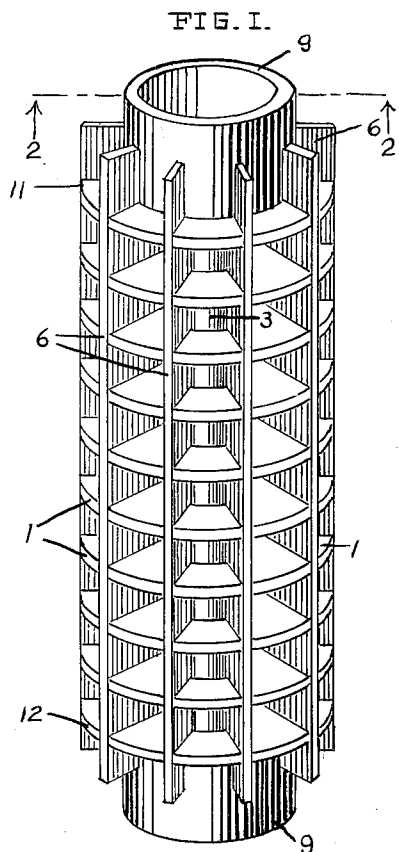


FIG. 3.

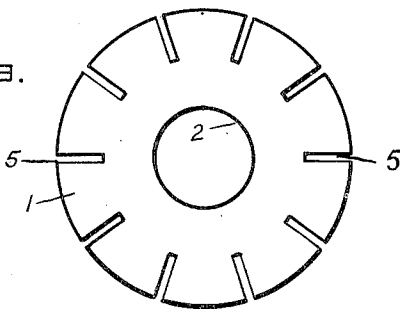
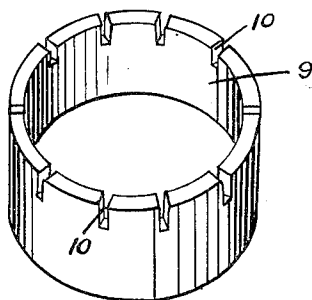


FIG. 4.



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## UNITED STATES PATENT OFFICE

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LAMP DIFFUSER FOR ELONGATED  
TUBULAR LAMPS

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1 Claim. (Cl. 240—108)

1

This invention relates to electric lamps.

Generally, my lamp comprises a plurality of parts that may be assembled or disassembled very easily and without the use of a single nail, screw or the like. The parts are of simple conformations and readily amenable to mass production methods, e. g. molding, stamping, pressing, etc. and may be made from materials such as plastic, metal or wood. The parts include vertical slats and disks which, when connected, form reflecting flutes thereby permitting proper diffusion and reflection of light. Further the lamp has increased versatility in that it may be used in any desired position. For example, it may be suspended from a support or it may rest on its end or side members.

These and other features of my invention will become more explicit when taken in conjunction with the accompanying drawings in which:

Figure 1 is a perspective view of the assembled lamp.

Figure 2 is a sectional view taken along lines 2—2 of Figure 1.

Figure 3 is a top plan view of one of the annular disks.

Figure 4 is a perspective view of a top or bottom annular ring.

Figure 5 is a side view of a vertical slat.

The lamp as illustrated by Figure 1 comprises a plurality of disks 1 (Figure 3), each disk having a cut out annular portion 2 concentric with the disk 1 and of sufficient size to accommodate a diffusing tube 3 and light 4. Slots 5 are cut symmetrically in each of the disks 1. A number of vertical slats 6 (Figure 5) conforming with the number of slots 5, have horizontal slots 7 cut along one longitudinal edge and slots 8 cut in the lateral edges thereof. The number of slots 7 cut along one edge of slat 6 conform with the number of disks 1. Two annular rings 9 (Figure 4) have slots 10 along one edge which fit into slots 8 of slats 6.

As best seen in Figures 1 and 2, the disks 1 and the vertical members 6 register with each other, by virtue of their respective slots, to form a rigid reflecting unit comprising a plurality of flutes. The elongated tube 3 (which may be of frosted glass) fits snugly within the annular cut out portion 2 and is securely held between disks 11 and 12 which are the extreme upper and lower disks respectively. Since disks 11, 12 have smaller cut out portions 2 than the other disks, tube 3 will abut the inner surfaces thereof. The assembled parts are held more rigidly together by virtue of slots 10 in the cylindrical rings 9 fitting into slots 8 of slats 6. The vertical slats 6 and the rings 9 are press fitted thereby consummating a tight non-rattling unit. A light 4 may be conveniently fitted within the annular chamber of tube 3 and held in place by any of the well known methods. For example a socket 13 may be attached to a threaded bolt 14 which passes between rings 15, 16 and held securely thereto by lock nut 17.

2

By way of example, the lamp may comprise ten disks 1, ten slats 6, two cylindrical rings 9, a diffusing tube 3 and light 4. Each disk of  $4\frac{3}{4}$ " thickness, of outside diameter  $4\frac{1}{8}$ " and inside diameter  $2\frac{1}{8}$ ", except for the two end disks which have an inside diameter of  $1\frac{1}{4}$ ". Ten slots,  $36^\circ$  apart, may be cut radially  $1\frac{1}{2}$ " in from the outside diameter. The slats 6 may be  $12\frac{1}{2}$ " long,  $2\frac{1}{2}$ " wide and  $\frac{3}{8}$ " thick. Each member may have ten slots uniformly spaced along one longitudinal edge and one slot on each lateral edge spaced approximately  $\frac{1}{8}$ " from the other longitudinal edge. The two cylindrical rings may be  $\frac{3}{8}$ " thick, have an outside diameter of  $4\frac{7}{8}$ " and  $2\frac{1}{2}$ " long. Ten slots spaced  $36^\circ$  apart may be cut vertically  $\frac{1}{8}$ ".

Although there has been shown and particularly described the preferred embodiment of the invention, it is not desired to be limited to the exact construction shown as various changes both in the form and relation of the parts thereof may readily be made without departing from the spirit and scope of the invention as set forth in the appended claims. For example, the disks may be made elliptical rather than circular and there may be more or fewer disks and vertical members.

What I claim is:

A light diffuser adapted to be used with an electric source of illumination, comprising a plurality of rectangularly shaped slats made of a rigid material, each slat having a plurality of slots positioned along one longitudinal edge, and a slot in each lateral edge thereof, said slots being laterally disposed with respect to their respective edges, a plurality of rigid disks, each having a centrally located aperture and a plurality of slots positioned along the external edge thereof and radially therein, the slots along the longitudinal edges of said slats registering with the slots in said disks such that the exterior edges of said disks and the exterior longitudinal edges of said slats lie in a plane, a pair of cylindrical rings, each having a plurality of slots positioned around one edge thereof, the slots of the respective rings registering with the slots in the respective lateral edges of said slats to lock the slats and disks into a rigid unit, a diffusing tube adapted to surround said source of illumination and positioned in the aperture of said disks, whereby the plurality of flutes formed by the interfitting slats and disks further diffuses said light.

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