July 7, 1964 J. C. LONG 3,140,055

LAMP SHIELD

Filed May 19, 1959

Fig. 1

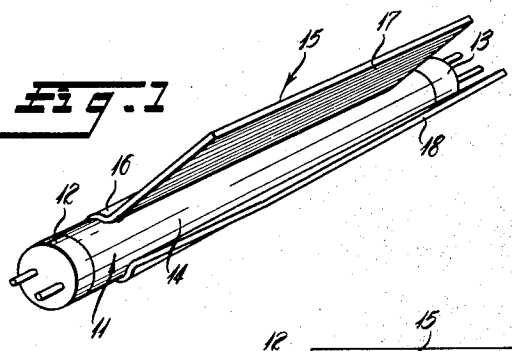
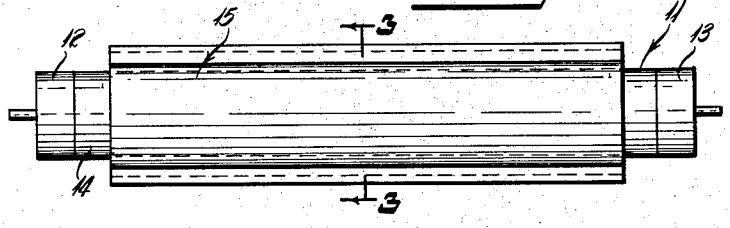


Fig. 2



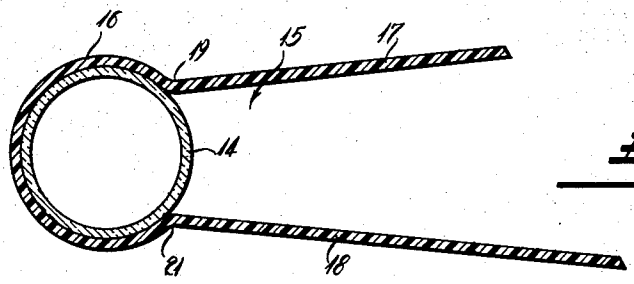
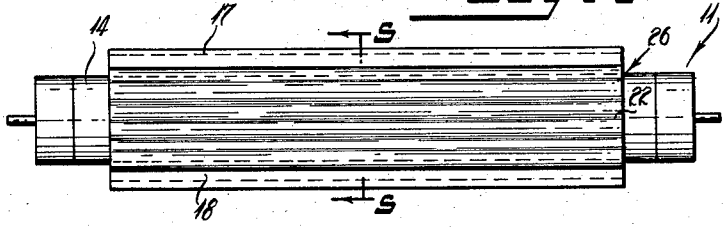


Fig. 3

Fig. 4



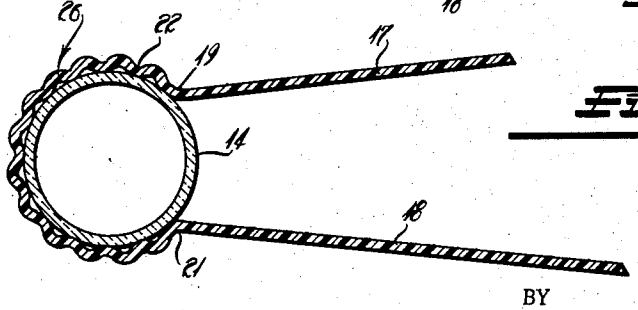


Fig. 5

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LAMP SHIELD

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1 Claim. (Cl. 240—46.19)

This invention relates to lamp shield and particularly to a one-piece shield adapted for direct mounting upon the glass tube section of the usual fluorescent lamp.

The major object of the invention is to provide a one-piece fluorescent lamp shield of novel construction.

A further object of the invention is to provide a novel one-piece fluorescent lamp shield of stiff flexible plastic that extends about the length of the lamp tube and will support itself directly on the lamp tube.

Another object of the invention is to provide a novel generally U-shaped lamp shield having a resilient mouth section.

Further objects of the invention will appear as the description proceeds in connection with the appended claims and the annexed drawings wherein:

FIGURE 1 is a perspective view showing an embodiment of the shield of the invention mounted on a fluorescent lamp;

FIGURE 2 is a rear elevation of the lamp and shield assembly;

FIGURE 3 is an enlarged section on line 3—3 of FIGURE 2;

FIGURE 4 is a rear elevation of a modified assembly; and

FIGURE 5 is an enlarged section showing the longitudinally corrugated part of the shield.

A fluorescent lamp 11 consists of the usual end socket connections 12 and 13 with a cylindrical glass tube 14 between them.

The shield 15 of the invention is adapted for direct mounting on the tube 14. Shield 15 is a one-piece structure made of relatively stiff springy plastic such as cellulose acetate which may be colorless or colored as desired.

Shield 15 is generally U-shaped and comprises essentially a longitudinal body 16 that is cylindrically curved and adapted to closely surround a major sector of the tube periphery, and two diverging straight wing portions 17 and 18 which may be of unequal width as shown or may be equal. Both wings and the body extend the entire length of the shield. If desired wings 17 and 18 may be parallel or even converging.

It will be observed that the uncovered sector of the tube 14 is materially less than 180°, body 16 extending more than 180° around the tube.

Along the junctures 19 and 21 between the wings and the body 16 the shield is preferably indented to a reduced diameter to more closely grip the smooth glass tube 14. The material of the shield is sufficiently springy and elastic to enable the restricted resilient mouth thereof defined at opposite sides by junctures 19 and 21 to be spread sufficiently by pulling the wings away from each other to snap the shield over the tube until body 16 conforms to the tube. Then upon release of the wings the shield relaxes toward frictional grip of the tube 14.

The shield is therefore self-supporting on the tube 14 and may be moved around the tube to directionally dispose the opening between the wings at any desired angle. If desired, the material of the shield may be opaque so that only the narrow light beam between the wings is directed out of the assembly.

The shield of FIGURES 4 and 5 is essentially the same as that of FIGURES 1–3 with similar parts indicated by similar reference numerals, but in FIGURES 4 and 5 the shield body 26 is formed with a series of parallel longitudinal corrugations 22. These corrugations have a dual function. They primarily serve to provide longitudinal air circulation passages to promote flow of heated air away from the part of the lamp tube surface enclosed by the shield body, and they also aid to some extent in the springiness of the shield enabling it to be opened more readily for slipping onto a lamp tube.

It is a real advantage for this shield that it can be speedily mounted upon or dismounted from the lamp without disconnecting the socketed ends of the lamp, and its direction can be changed readily merely by rocking it about the lamp tube.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiments are therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claim rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claim are therefore intended to be embraced therein.

What is claimed and desired to be secured by United States Letters Patent is:

A directed illuminated assembly comprising an elongated cylindrical lamp tube having a smooth uniform periphery from end to end and end socket connections and a light restricting generally U-shaped shield mounted directly on said lamp tube between said socket connections, said shield consisting essentially of a one-piece thin walled structure of stiff springy plastic formed from a single sheet of plastic and shaped to provide a pair of straight flat-sided light directing and confining substantially parallel spaced apart wings and a substantially cylindrically curved uniformly diametered body section disposed between said wings and adapted to extend circumferentially over more than 180° of the periphery of said tube in partial surrounding relation thereto and in close surface contact therewith, said body section frictionally grip said tube to maintain itself in any selected angular disposition around said tube, said wings extending non-radially away from oppositely directed edges of said body section and being contained in planes that diverge at less than 90° to define a narrow light beam from said tube, the junctures of said wings with said body section being indented to a reduced diameter which is less than said uniform diameter to provide a resilient mouth yieldably gripping said tube more closely than said body section, said wings being of sufficient length to enable said wings to be manually pulled away from each other to snap said shield over said tube, said body section being completely longitudinally corrugated between said junctures to form with said tube a series of side-by-side uninterrupted open-ended air passages extending in parallel relation to the longitudinal axis of said tube and to provide increased flexibility of said body section about the axis of said tube.

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