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SHADE ASSEMBLY FOR LIGHT SOURCES OF TUBULAR SHAPE

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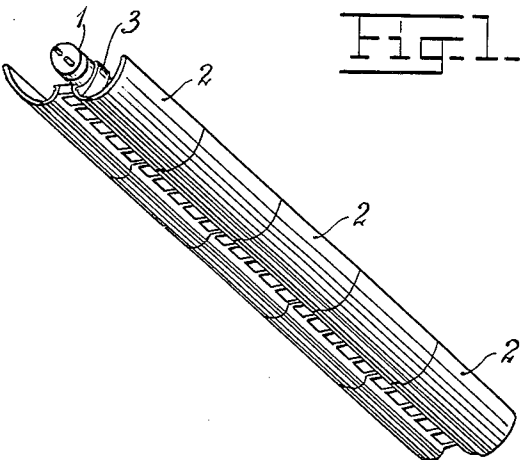


Fig. 1.

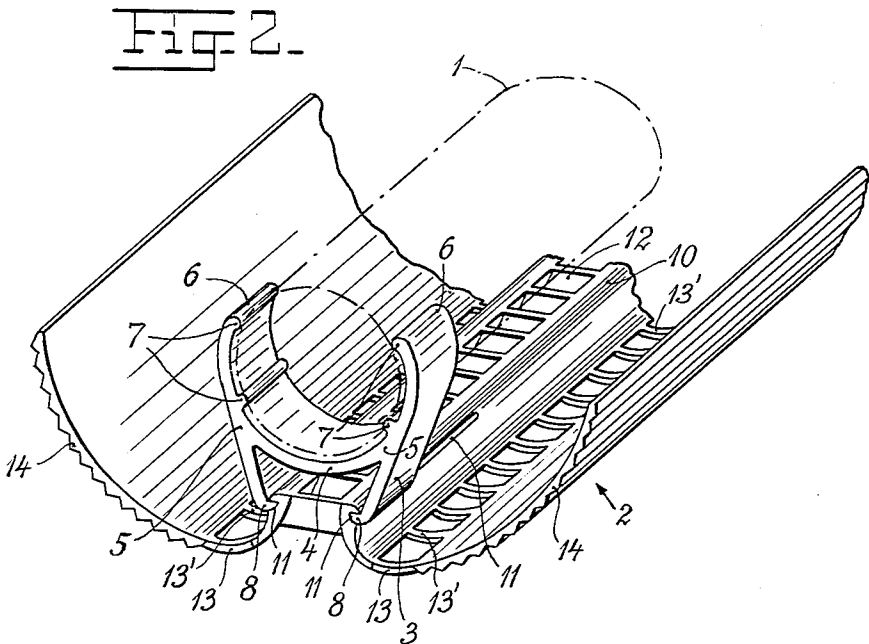


Fig. 2.

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2 Claims. (Cl. 240—51.11)

The present invention relates to a shade assembly for light sources of tubular shape, which shade assembly is of the kind which is detachably fixed to the glass tube proper by means of grips or the like which more or less embrace the glass tube.

Shades of this kind have been previously known, in which the grips are made in one piece with the shade proper and the whole unit is produced from some suitable transparent or diffusing material, such as thermoplastic resin. The grips, which form pairs of tooth- or rib-like protrusions, are directed against and arranged on either side of the glass tube of the lamp so as to grip same. Owing to the relatively large tolerances which are allowed with respect to the diameter of the lamp tube, as the case is for instance in the manufacture of the fluorescent lamps, in many cases it is, not possible to get the shade safely fixed to the tubes of the smallest diameter, and the object of the invention is to avoid this disadvantage in that the shade is held fast to the lamp tube by means of a springy clamp which embraces at least 200° of the tube and which is preferably detachably connected to the shade proper.

An embodiment of the invention is to be described below with reference to the drawing, in which:

Fig. 1 shows, in perspective, a tubularly shaped light source, for instance a fluorescent lamp having a number of shades according to the invention fixed to it, which shades serve the purpose of either reflecting, diminishing or intercepting the luminous flux in certain directions or to break up the incident light and distribute or diffuse same, and

Fig. 2, also in perspective, shows one end of a shade according to the invention.

Fig. 1 shows how five shades 2 are fixed to and carried by a tubularly shaped light source 1, such as a fluorescent lamp.

As shown in detail in Fig. 2, the shade 2 is detachably connected to the lamp tube proper 1 by means of a clamp 3 of principally H shape, in which at least the mean portion 4 is springy so that the upper opposite ends 5 of the side portions 5 will be bent out when said ends 5 are forced over the lamp tube 1. Said clamp is provided with inwardly directed teeth or ribs 7 which will be pressed against the lamp tube by springy action to hold fast said clamps on the tube.

The other or lower ends 8 of the clamp 3 are provided with teeth or ribs which are directed inwardly against one another and engage correspondingly shaped slots 11 formed on either side of a rib shaped portion 10 which is formed in one piece with the shade 2. Said rib portion 10 may be solid or, as in the present case, provided with apertures 12 formed between transverse ribs so as to let through the main part of the luminous flux within this region of said rib 10.

The main part of the shade is formed by two opposite blades 14 each of which form about a quarter of a hollow cylinder, both being connected with the rib 10 by intermediate portions 13 integral with the blades 14 and said rib 10 as well, which portions 13 may be either solid or provided with apertures formed between ribs 13', similar to the apertures 12.

The inner or concave surfaces of the blades 14, fac-

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ing toward the lamp 1, are smooth in order to facilitate cleaning of same, whereas the outer or convex surfaces are provided with impressions of some kind, in the present case forming parallel ribs of substantially prismatic shape, which will serve to refract the light rays and redistribute same more or less, as may be desired.

In the embodiment shown in the drawing the connection between the clamp 3 and the shade 2 is formed by a kind of dovetail connection, but obviously any other connection may be used which will serve the same purpose, namely increase the pressure of the lower clamp ends 8 against the rib 10 when the clamp is forced over the lamp tube 1 so that the upper part of the side portions 5 of said clamp 3 are pressed out against the springy action of the middle portion 4.

The slots 11 may have the same length as the ribs 10 so that the clamp or clamps 3 may be fixed at any place between the ends of the shade, contrary to the embodiment in which the clamps can only be fixed in the regions of the ends of the shade.

When so-called lighting bands are to be arranged, a number of shades may be fixed to the tubular lamps with abutting ends so that said band will also cover the ends of the lamps and their mountings.

As appears from the drawing the upper ends of the side portions 5 of the clamp 3 embrace together at least 200° of the lamp tube 1 when seen in cross section, so that in all events even the tubes having the smallest diameter within the tolerances may be used in connection with the shade according to the invention.

The clamp may be made from any suitable material, such as metal, but preferably it is formed of a transparent, springy, thermoplastic material so that same will not throw any shadow on the shade. Similarly, the shade may also be made of a transparent or diffusing material, such as some thermoplastic resins. The shade as well as the clamp may be either clear or opalescent, and either white or coloured.

The mounting of the shade on the lamp tube is made by first applying the clamp to the shade as shown, and then forcing the clamp over the lamp tube. Thereby a good connection is obtained between the lamp and the clamp as well as between said clamp and the shade.

In the claims:

1. A shade assembly for light sources of tubular configuration; said assembly comprising a shade, at least one H-shaped clamp having two spaced arms connected, intermediate their ends, by a cross-piece, at least said cross-piece of the clamp being resilient, said arms at one end being formed to substantially embrace the tubular light source, and interengaging means on the other ends of said arms and on said shade for detachably connecting said clamp to said shade, said means on the shade including a centrally located longitudinal rib thereon projecting from the shade in the direction toward the tubular light source and gripped between said other ends of the clamp arms.

2. A shade assembly according to claim 1, wherein said interengaging means includes said longitudinal rib and has oppositely opening slots extending longitudinally in the sides thereof, and projections on said other ends of the clamp arms directed toward each other to engage removably in said slots.

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