

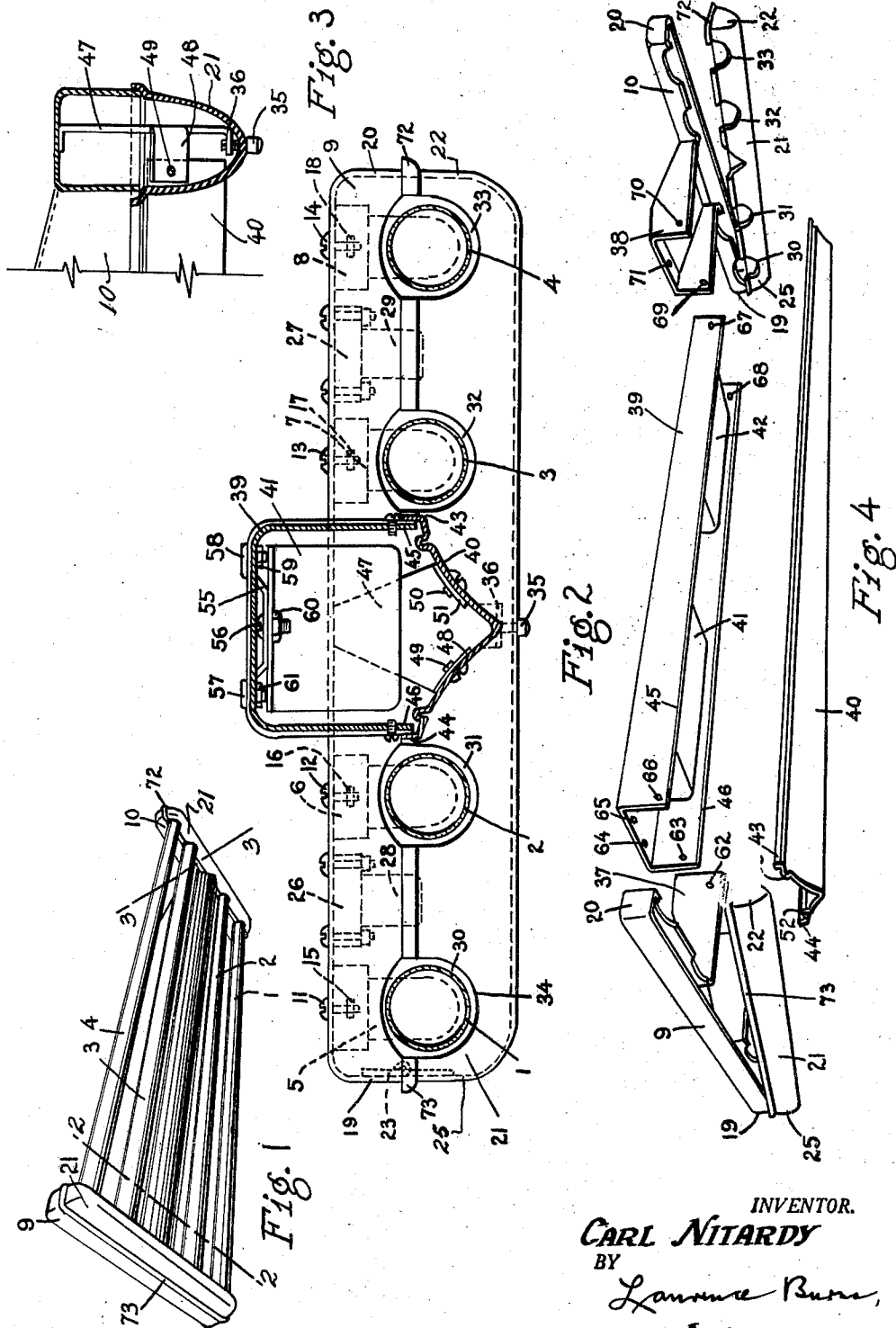
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FLUORESCENT LIGHTING FIXTURE

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FLUORESCENT LIGHTING FIXTURE

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1 Claim. (Cl. 240—51.11)

1

This invention relates to electric lighting fixtures and particularly to fixtures for electric discharge lamps such as fluorescent lamps.

An object of the invention is a fixture for suspension from or attachment to a ceiling.

A further object is a fixture which will not produce a sharp shadow on the ceiling and which will distribute the light in an effective manner pleasing to the eye.

Still another object is a fixture having sheaths to cover the lamp sockets and to prevent lamps from dropping out of the fixture on becoming loose in their sockets.

One feature of the invention is such a sheath and other features are a row of parallel tubular lamps, a central reflector for increasing the downward light from the lamps and an open structure over the tops of the outside lamps to enable radiation of some light toward the ceiling.

Other features, advantages, and objects will be fully apparent when the following description is taken in conjunction with the drawing, in which:

Figure 1 is a perspective view of the fixture;

Figure 2 is a transverse cross section on line 2—2;

Figure 3 is a section in plane 3—3; and

Figure 4 is a schematic drawing showing the parts of the fixture chassis.

In the figures, the lamps 1, 2, 3, 4 are supported at each of their ends by sockets 5, 6, 7, 8, as shown in Figure 2. The sockets are supported from the channels 9 and 10, being held thereto, for example, by the screws 11, 12, 13, 14 and their corresponding nuts 15, 16, 17, 18. The channels 9, 10 are closed at their transverse ends 19, 20. The lower channel piece 21, for example, is also closed at its transverse ends 22 and 25 and one of said ends such as 22, may be hinged to the corresponding end 19 in channel 9. The hinge 23 may be employed for fixing ends 19 and 25 together or if desired, the ends 19 and 25 may themselves form the hinge, being joined by an appropriate pin. The other end 22 of channel 21 will be in register with end 20 of channel 9. A spring latch may be employed to hold ends 22 and 20 together if desired, although I prefer to use the screw 35 which fits into arm 36 for this purpose. The hinges and latch may be omitted, if desired, and the lower channel 21 held only by this screw 35, thus making the channels detachable. The channel 9 may include appropriate starter sockets 26 and 27 with their corresponding starters 28 and 29 of a convenient conventional type, if desired. The channels 9 and 21 when locked together form a sheath for the

2

sockets 5, 6, 7, 8 hiding them from view, enclosing the wiring, and preventing the lamps 1, 2, 3, 4 from falling out of the fixture should they become loose in the sockets. To achieve the latter purpose, openings 30, 31, 32, and 33 are present in the closed sheath for passage of the lamp ends therethrough into the sockets 5, 6, 7 and 8. The inside wall 34 of the channel will serve to hold the lamp up if the lamp becomes loose in the socket.

The channel sheaths 10 and 21 at the other end of the fixture will of course, be the same as, and facing, channels 9 and 21 so that the corresponding parts will be in register with each other. It will ordinarily be convenient to have the channels hinged together so that they open in the same direction as in Figure 4. The housings 37 and 38 extend from the middle of the upper channels 9 and 10 to join the latter to the main longitudinal channel 39 which serves to support the end channels 9 and 10 and the reflector 40, forming with said reflector an enclosed housing for the conventional ballasts 41 and 42. Each ballast will ordinarily supply two lamps. The edges 43 and 44 of the reflector 40 will fit over the sides 45 and 46 of the longitudinal channel 39. The supporting arm 47 may have the tabs 48 and 51 attached to the reflector 40 by the screws 49 and 50. One such bracket with its corresponding tabs 48 and 51 will be present at each longitudinal end of the reflector. The reflector may have the two parallel crimps 52 and 53 near each of its edges 43 and 44 for rigidity and to insure that the reflector edges 44 and 43 rest securely over the sides 46 and 45 of the longitudinal channel 39. The ballasts 41 may be attached to the channel 39 in any appropriate manner but I prefer to use the bracket 55 with screws 56, 57, and 58 and their accompanying nuts 59, 60 and 61. In order to hold parts 37, 38 and 39 together screws may be passed through holes 62, 63, 64, 65, 66, 67, 68, 69, 70, 71 and secured with nuts if desired. The lips 72 and 73 may be present on the outer edges of channel 21.

The reflector 40, longitudinal channel 39, the transverse channels 9, 10, 21, and their interconnecting pieces 37 and 38 are preferably made of metal, for example, steel. This will protect the wiring and give a fixture of good strength. The starting voltage of the lamps will generally be lower and more consistent when metal is used, particularly if the lamps are to be started instantly, without preheating of the cathodes.

The reflector 40 and other metal parts are best finished in white baked enamel or plastic,

3

but I prefer finish of satin aluminum or other metal for the sheaths 9, 10, 21.

Nearly all of the light from the outside lamps 1 and 4 is radiated directly rather than by reflection. Since there is no reflector above these lamps, a considerable portion of their radiation is directly radiated toward the ceiling. Some of the light from the inside lamps 2 and 3 also reaches the ceiling, but part is reflected downward by the reflector 40. In this way, the undesirable dark shadows on the ceiling around the reflector, present with the usual present-day fixture, are prevented, and the ceiling is utilized to direct some of the light around the room to give a very pleasing and effective type of illumination. Where direct light from the lamps is not desired the fixture described can be used with louvres or light-diffusing glass or the like.

The reflector 40 may be extended sideward from its edges 44 and 43, if desired, to direct more light downward and increase the efficiency of the unit, but it should not be extended far enough to prevent light from the outside lamps 1 and 4 reaching the ceiling above the fixture to prevent shadows thereon.

What I claim is:

In a fixture for tubular electric lamps having a main body channel, elongated relatively narrow enclosures secured to and extending transversely

4

across the ends of said main body channel and extending laterally beyond the plane of the sides of said main body channel, said enclosures comprising hollow downwardly opening upper sheaths, a plurality of lamp sockets secured therein, short channel portions connected to the said upper sheaths and overlapping and secured to the end of the said main body channel, upwardly opening lower sheaths detachably secured in register to said upper sheaths to complete said enclosures, said enclosures having openings in the inner walls thereof through which the ends of the lamps extend to be received in said sockets whereby the light from the main body of at least some of the lamps is uninterrupted from above or below by any fixture element.

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