Feb. 27, 1951 W. C. YEAGER 2,543,713

FLUORESCENT LAMP FIXTURE

Filed Feb. 13, 1947

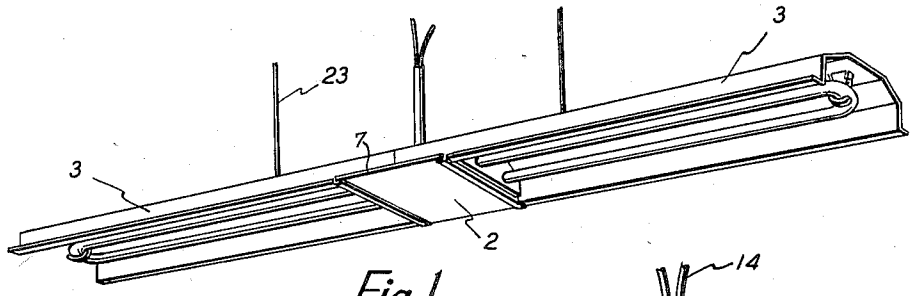


Fig. 1.

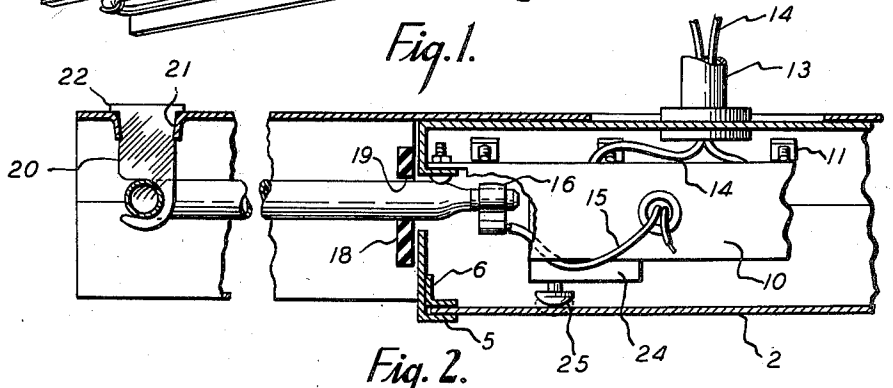


Fig. 2.

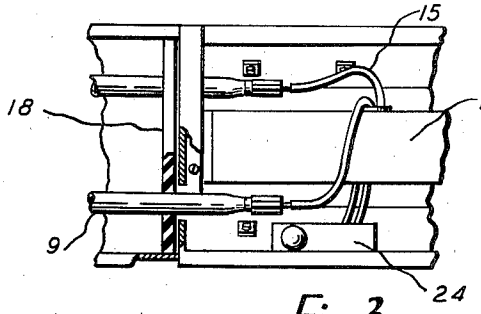


Fig. 3.

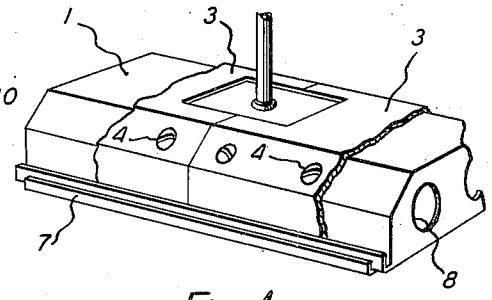


Fig. 4.

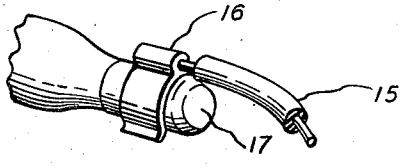


Fig. 5.

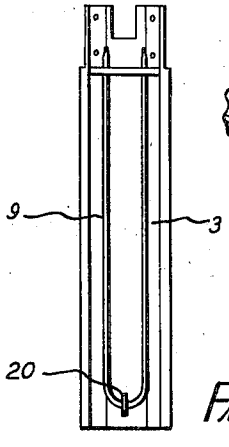


Fig. 6.

WILLIAM C. YEAGER
INVENTOR

BY Herbert J. Brown
ATTORNEY

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FLUORESCENT LAMP FIXTURE

William C. Yeager, Fort Worth, Tex.

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1 Claim. (Cl. 240—51.12)

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This invention relates to fluorescent lighting and has reference to a fixture for cold cathode lamps.

An object of the invention is to provide, in a fixture of the described class, a demountable construction and arrangement whereby the same may be conveniently handled when packing and shipping, yet one which is easily installed and maintained.

Another object of the invention is to provide a fixture center section for readily accomplishing the foregoing object and for accommodating U-shaped fluorescent lamps.

A further object of the invention is to provide a safety feature in a demountable fluorescent lamp fixture whereby the ballast wiring and lamp contacts must be entirely enclosed before the lamp can operate.

These and other objects of the invention will become apparent from the following description of the accompanying drawing, wherein:

Figure 1 is a perspective view of an assembled fluorescent lamp embodying the features of the present invention.

Figure 2 is a broken longitudinal sectional view of the fixture illustrated in Figure 1 showing the construction of the center section and its relation to one of the fluorescent lamps.

Figure 3 is a broken bottom view of a portion of Figure 2.

Figure 4 is a perspective view of the center section of the fixture and showing, by means of broken lines, the inner ends of the reflectors detachably secured thereto.

Figure 5 is a broken perspective view of one end of a cathode lamp and showing means for connecting the same with a lead wire from the ballast, and

Figure 6 is a bottom view of one of the reflectors and showing a U-shaped fluorescent lamp positioned therein.

The form of the invention shown includes a box-like center section 1, the bottom of which is provided with a door or panel 2. The center section 1 may be ventilated by louvers or other openings (not shown). The upper surface of the center section 1 is substantially convex in lateral cross section to receive abutting ends of concave reflectors 3 which are detachably secured to the said center section by screws 4, or the like. In the form of the invention shown, the panel 2 is slidably supported upon flanges 5 integral with the ends of the said section and retained by angle stock 6 secured within the said section and in spaced parallel relation with respect to the said flanges.

As shown in Figures 1 and 4, the panel 2 has a flanged lip 7 which serves as a handle for manually operating the same. The ends of the center section are provided with annular openings 8 to receive the ends of the U-shaped fluorescent tube 9, to be mounted in the manner hereafter described.

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A ballast 10 is supported within the center section 1 by means of small brackets 11 and the heretofore referred to screws 4, as particularly shown in Figure 2. The upper center of the center section 1 is provided with a conduit bushing 13 for receiving the wires 14 from the source of power and are connected with the ballast 10. Other wires 15 from the ballast 10 are connected with spring clip connectors 16 for frictionally engaging the electrode caps 17 of the tubular lamps 9.

As shown in Figures 2 and 3 the electrode ends of the lamps 9 are received through the annular openings 8 in the ends of the center section 1, where, in operation, they are fully enclosed. To further insulate the electrode caps 17, the corresponding ends of the lamps 9 are provided with a single insulation shield 18 positioned outwardly of the ends of the center section 1, and having openings 19 to receive the diameters of the lamps 9.

The bends of the lamps 9 are supported within the reflectors 3 at the outer ends of the assembled fixture by means of transparent notched brackets 20. The surfaces of the reflectors 3 are provided with openings 21 which receive the brackets 20 downwardly therethrough, and by reason of lateral projections 22 at the upper ends of the said brackets, the tubes 9 are well supported by the said reflectors. The brackets 20 are not only convenient to install, but do not interfere with the lighting effect.

As shown in Figure 1, the fixture may be suspended by suitable means, such as small cables 23. A spring actuated switch 24 for operating the ballast 10 is supported within the center section 1, and in the form of the invention shown includes a button 25 which normally extends below the panel 2 when the switch is open. Thus, when the panel is opened, the switch is off and the lamps 9 are not energized. Preferably, the switch 24 is located near the edge of the center section 1 which is first to be opened by the sliding panel 2. Thus, the switch 24 is closed only when the panel 2 is closed.

By reason of the described construction, the reflectors 3 may be readily removed for shipping and handling. The demounted fixture may be readily assembled by merely attaching the reflectors 3 in place by means of the screws 4. To complete the assembly, it is only necessary to insert the ends of the lamps 9 in the manner described, and support the same by the brackets 20, and the fixture is ready for operation after being suspended and connected.

By reason of the described switch, which is operated by the sliding panel 2, the high voltage of

the ballast cannot endanger the mechanic servicing the device.

What is claimed is:

A demountable fixture for supporting a pair of U-shaped fluorescent lamps, comprising a box-like center section having a substantially convex upper surface, abutting concave reflectors detachably secured at their abutting ends on said convex surface of said box-like center section, openings in the ends of said center section beneath said reflectors for receiving the respective ends of said U-shaped fluorescent lamps, and means supporting the bent ends of said fluorescent lamps beneath the outer ends of said reflectors.

WILLIAM C. YEAGER.

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