May 8, 1945. L. J. ROZIER 2,375,589

ELECTRIC LIGHTING FIXTURE

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Fig. 1.

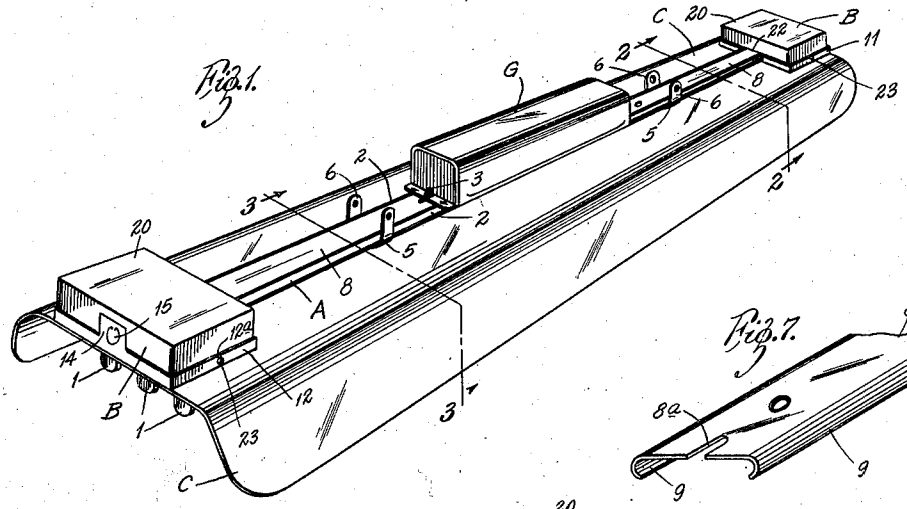


Fig. 7.

Fig. 2.

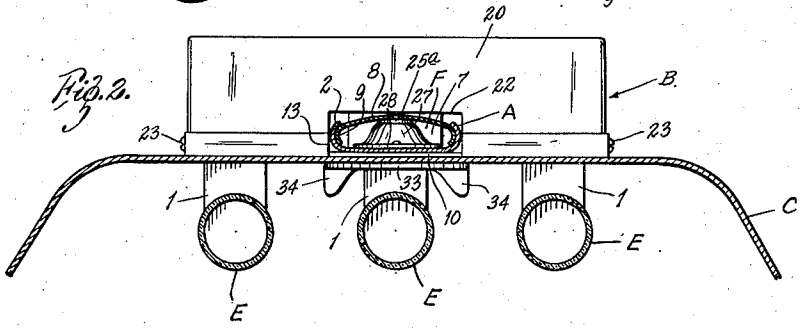


Fig. 3.

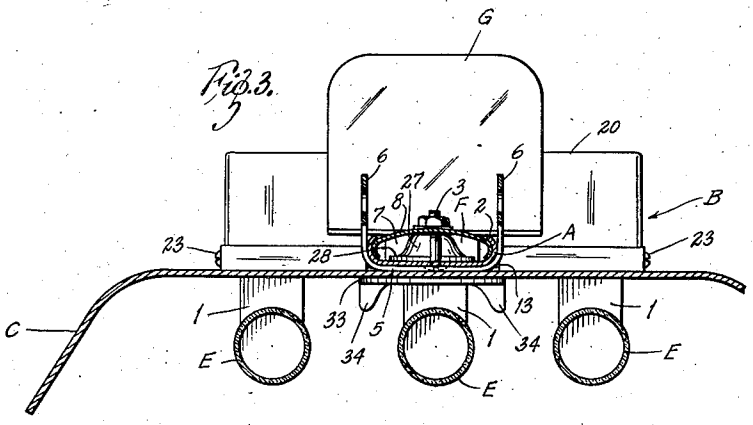


Fig. 9.

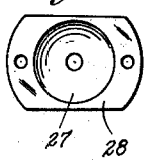
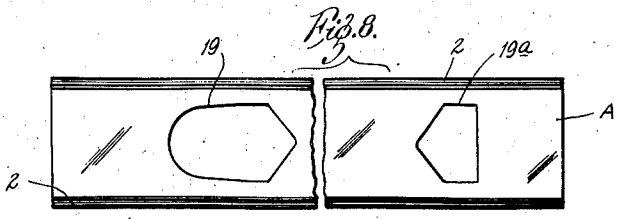


Fig. 8.

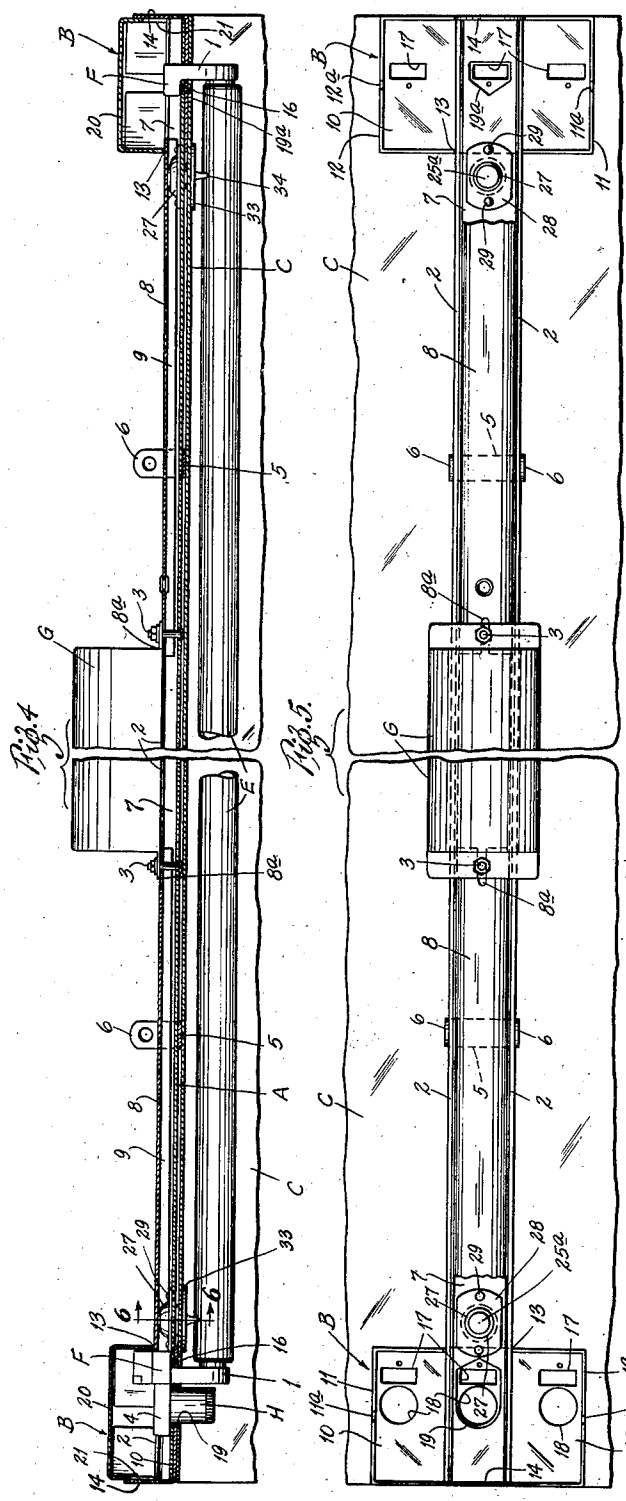


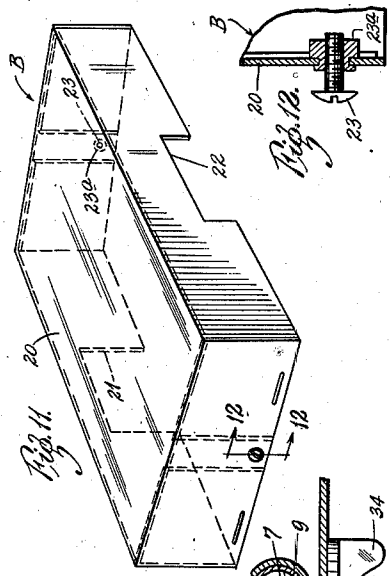
INVENTOR:
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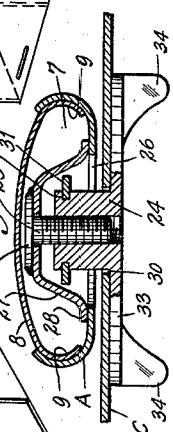
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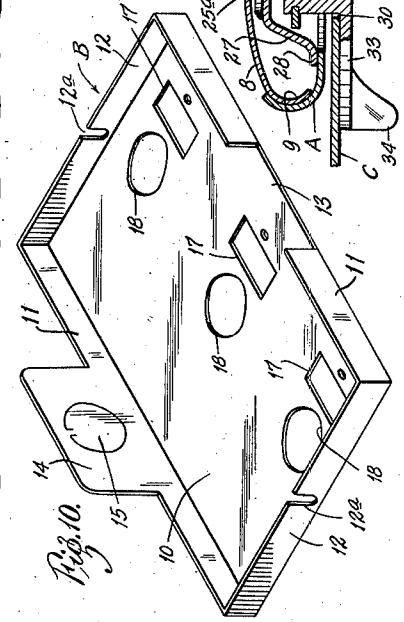
ELECTRIC LIGHTING FIXTURE

Filed March 1, 1943 2 Sheets-Sheet 2









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UNITED STATES PATENT OFFICE

2,375,589

ELECTRIC LIGHTING FIXTURE

Louis J. Rozier, Kirkwood, Mo., assignor to Day-Brite Lighting, Inc., St. Louis, Mo., a corporation of Missouri

Application March 1, 1943, Serial No. 477,504

5 Claims. (Cl. 240—78)

This invention relates to electric lighting fixtures, particularly fluorescent lighting fixtures, and has for its object a strong and durable, simple and economical light-weight fixture that is easy to assemble and disassemble and neat in appearance and in which the wiring and control equipment are readily accessible for inspection, repair or replacement. The invention consists in the electric lighting fixture and in the parts and combinations and arrangements of parts hereinafter described and claimed.

In the accompanying drawings, which form part of this specification and wherein like symbols refer to like parts wherever they occur,

Fig. 1 is a perspective view of a fluorescent lighting fixture embodying my invention,

Figs. 2 and 3 are enlarged vertical transverse sections on the lines 2—2 and 3—3, respectively, in Fig. 1,

Fig. 4 is a fragmentary vertical central longitudinal section through the lighting fixture,

Fig. 5 is a fragmentary plan view of the fixture, with the covers removed from the boxes for the lampholders and with the snap covers for the longitudinal wireway shown broken away in the region of said boxes,

Fig. 6 is an enlarged fragmentary vertical cross-section on the line 6—6 in Fig. 4,

Fig. 7 is a perspective view of a portion of one of the wireway covers,

Fig. 8 is a plan view of the channel-shaped longitudinal main member of the fixture,

Fig. 9 is a plan view of one of the inverted cup-shaped stud supporting members of said longitudinal main member,

Fig. 10 is a perspective view of the bottom section of the box for the combined lamp and starter holders at one end of the fixture,

Fig. 11 is a perspective view of the slip cover for said box; and

Fig. 12 is an enlarged fragmentary vertical section through said slip cover, showing the locking screw therefor.

In the accompanying drawings, my invention is shown embodied in a fluorescent lighting fixture comprising a main, longitudinal channel member A; rectangular boxes, receptacles or housings B sustained by and disposed crosswise of said channel member at the ends thereof; an inverted channel-shaped open-end reflector C secured to the underside of said channel member and extending substantially from end to end thereof; spaced parallel tubular fluorescent or electric discharge lamps E extending lengthwise of said reflector in the upper portion thereof; and lampholders F mounted in said boxes and having depending socket portions 1 adapted to receive and support the ends of said lamps. The fixture is provided with the usual operating auxiliaries including a bottom-feed ballast G, which seats on the upper edges of the inwardly curled upwardly extending side flanges 2 of the channel member A midway of the boxes B and is removably secured thereto by vertical bolts 3, and starter switches H engageable with downwardly opening sockets provided therefor in laterally extending portions 4 of the lampholders in one of said boxes. Hanger straps 5 are riveted flatwise to the underside of the channel member A intermediate between the ballast G and boxes B and have end flanges 6 that project upwardly on opposite sides of said channel member and are perforated to receive a suitable suspension device (not shown).

The elongated main body or channel member A constitutes a support for the boxes B and an open wireway 7 for wiring (not shown) leading from the ballast G to the lampholders F in the boxes B. The ballast G covers the portion of the wireway 7 located therebelow; while the portions of said wireway between the ballast and the boxes B are covered by quick-detachable covers 8 that extend beneath said ballast and into said boxes and have their adjacent ends notched, as at 8a, to straddle the ballast securing bolts 3. As shown in Fig. 6, the covers 8 are of substantially inverted channel-shaped section and have their depending side flanges 9 curled inwardly so as to fit within the inwardly curled upwardly extending side flanges 2 of the channel member A; and said covers are preferably made of resilient non-metallic material, such as fiberboard or the like, whereby the curled side marginal flanges 2 of the covers are adapted to snap into engagement with the curled side marginal flanges of said channel member when said cover flanges are forced downwardly into the latter.

Each of the boxes B preferably comprises a sheet metal bottom member or pan section with upstanding side and end marginal flanges 11 and 12, respectively. The bottom section 10 of each box B is welded or otherwise rigidly secured flatwise to the underside of the channel member A, with its outer side marginal flange disposed in abutting relation to the adjacent end of said channel, and with its inner side marginal flange notched, as at 13, to receive said channel. The outer side marginal flange of the lower section 10 of each lampholder box has an upwardly extending portion or lug 14 midway of the ends thereof

which is provided with a knockout 15, through which a line wire (not shown) may be brought into said box. The lampholders F are secured by screws 16 to the bottom of the lower box section 10, which has holes 17 therein through which the depending lamp socket portions 1 of the lampholders extend. As shown in Fig. 10, the bottom section 10 of the box for the lampholders having the starter switch socket portions 4 have holes 18 therein through which the starter switches H extend. As shown in the drawings, the channel A and the reflector C are provided at one end of the fixture with registering holes 19 for the depending lamp supporting portions 1 of the lampholders and the starter switches H at said end, and at the opposite end with openings 19*a* through which the depending portions of the lampholders at said opposite end extend.

The upper section of each of the boxes B comprises a slip cover 20 which snugly fits within the upstanding side and end flanges of the lower section 10 of said box and seats on the bottom thereof. Each slip cover 20 has a notch 21 in the outer side wall thereof opposite the knockout 15 in the upstanding lug on the corresponding upstanding side flange 11 of the lower or base section 10. The inner side wall of the slip cover also has a notch 22 therein adapted to accommodate the channel member A. The cover 20 is preferably made of fiberboard or other non-metallic material and is secured in place by means of screws 23 carried by bushing 23*a* fixed to the end walls thereof. The screws 23 seat in notches 12*a* provided therefor in the upstanding end flanges 12 of the base member 10 of the box and are adapted, when tightened, to hold said cover in place.

The reflector C is preferably made of enamel finished pressed-board or other non-metallic material and is removably secured to the underside of the channel member A by fasteners comprising nuts 24 that are carried by said reflector and cooperate with threaded studs 25 that project downwardly through openings 26 provided therefor in said channel member adjacent to the boxes A. The studs 25 are mounted in inverted cup-shaped supporting members 27 located in the wireway 7 in the channel member A. The cup members 27 have peripheral base flanges 28 that are secured by rivets 29 around the openings 26 in the channel member A; and the studs 25 extend downwardly through openings provided therefor in the tops of said cup members and have head portions 25*a* at the upper ends thereof that seat on and are welded or otherwise permanently secured to said tops. As shown in the drawings, the nuts 24 which cooperate with threaded studs 25 extend upwardly through holes 30 provided in the reflector C and through the holes 26 in the channel member A into the stud supporting members 27 and are provided above the top wall of the reflector C with C-shaped retaining washers 31 which seat in annular grooves 32 in said nuts, and below said top wall with enlarged disk-shaped heads 33 that are of larger diameter than the holes 30 in said reflector and have diametrically opposed finger or thumb pieces 34 depending from their undersides.

The hereinbefore described lighting fixture has several important advantages. The boxes B, ballast G and snap covers 8 cooperate with the channel member A to close the wireway 7; and access may be had to the greater portion of said wireway merely by removing said snap covers. The ballast G and starter switches H may be replaced without disturbing other parts of the fixture. The slip covers 20 may be readily removed from the boxes B to permit access to be had to the lampholders F; and said lampholders may be replaced without disturbing the reflector C. The snap covers 8 and the slip covers 20 and the reflector C are preferably made of cheap light-weight non-metallic material, such as fiberboard or other non-critical material; the reflector C may be removed and replaced without disturbing the lampholders F or starter switches H; and the inverted cups 27 form rigid supports for the threaded studs 25 and also provide spaces for accommodating the portions of the nuts 24 that extend above the top of the reflector into engagement with said studs.

Obviously, the hereinbefore described lighting fixture admits of considerable modification without departing from the invention, and I do not wish to be limited to the precise construction shown and described.

What I claim is:

1. A lighting fixture comprising an elongated body member having a longitudinal wireway along the top thereof, boxes spaced apart longitudinally of said body member and communicating with said wireway, each of said boxes comprising a lower section rigid with said member and a non-metallic upper slip cover section for said lower section, lampholders mounted in said lower sections, a reflector secured to the underside of said member, said lampholders having depending lamp supporting portions extending downwardly through registering openings provided therefor in said lower box sections, said member and said reflector, a ballast secured to said member over said wireway intermediate between said boxes, and quick-detachable non-metallic snap covers for said wireway between said ballast and boxes.

2. A lighting fixture comprising an elongated main member having curled side flanges forming a longitudinal wireway along the top of said member, boxes spaced apart longitudinally of said member and communicating with said wireway, each of said boxes comprising a lower pan section rigid with said member and an upper slip cover section, lampholders mounted in said lower sections, a reflector secured to the underside of said main member, said lampholders having depending lamp supporting portions extending downwardly through registering openings provided therefor in said lower box sections, said member and said reflector, a ballast seated on said curled side flanges of said member, and covers for said wireway between said ballast and boxes, said covers having curled marginal flanges adapted for snap engagement with the curled side flanges of said member.

3. A lighting fixture comprising a channel member having its channel facing upwardly to form a wireway, boxes spaced apart longitudinally of said channel member and communicating with said wireway, each of said boxes comprising a lower section rigid with said channel member and an upper closure section for said lower section, a reflector disposed beneath said channel member, supports mounted in said wireway, threaded studs depending from said supports, nuts loosely mounted in said reflector and engageable with said studs through openings provided therefor in the bottom of said channel member, lampholders mounted in the lower sections of said boxes and having portions extending downwardly through said channel member and said reflector, a ballast mounted on said channel member over

said wireway between said boxes, and covers for said wireway between said ballast and boxes.

4. A lighting fixture comprising an upwardly opening wiring channel, boxes spaced apart longitudinally of and communicating with said wiring channel, each of said boxes comprising a lower section rigid with said wiring channel and an upper closure section for said lower section, a ballast mounted on said wiring channel between said boxes, covers for said wiring channel between said ballast and boxes, a reflector secured to the underside of said wiring channel, lampholders mounted in said lower sections and having depending lamp supporting portions extending downwardly therefrom through registering openings provided therefor in said lower box sections and said reflector, the lampholders in one of said boxes having downwardly opening sockets therein, and starter switches engaging said sockets through registering openings provided therefor in said reflector and wiring channel and the lower section of said box.

5. A lighting fixture comprising an elongated load supporting body member having an open wireway therein extending from end to end thereof, boxes sustained by said body member at the ends thereof, said boxes extending on opposite sides of said body member and enclosing the end portions thereof and the end portions of the wireway therein, closure members for said boxes, closure members for said wireway between said boxes, a separate elongated reflector detachably secured to said fixture beneath said body member and boxes, and lampholders mounted in said boxes on opposite sides of said body member and having depending lamp supporting portions extending downwardly through registering openings provided therefor in said boxes and reflector.

LOUIS J. ROZIER.