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2,587,920

LIGHTING FIXTURE WITH DETACHABLE LIGHT CONTROL PANEL

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Fig. 1.

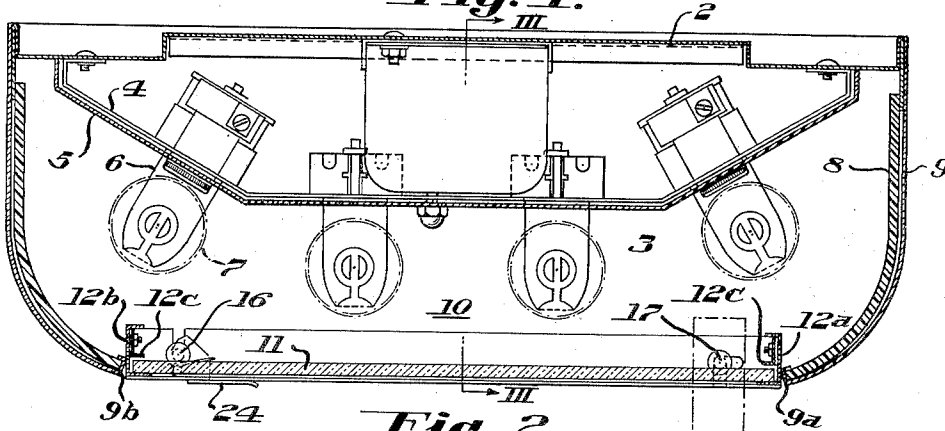


Fig. 2.

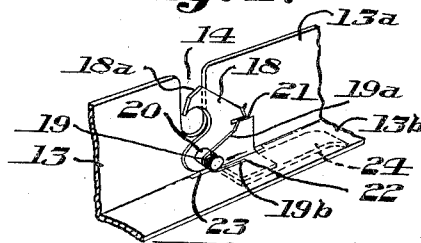


Fig. 3.

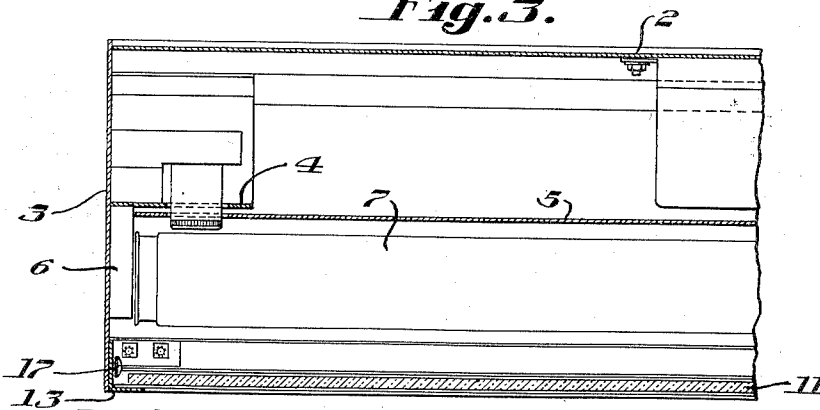


Fig. 4.

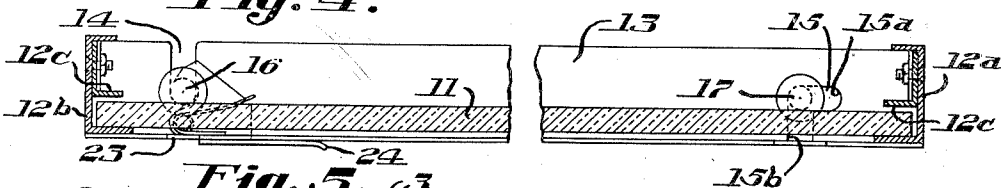
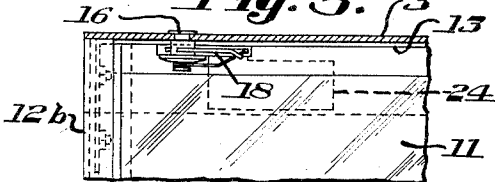


Fig. 5.



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UNITED STATES PATENT OFFICE

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LIGHTING FIXTURE WITH DETACHABLE
LIGHT CONTROL PANELWalter W. Stubbs, Irwin, Pa., assignor to Pitts-
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5 Claims. (Cl. 240—51.11)

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This invention relates to lighting fixtures and more particularly to a lighting fixture with a detachable panel located adjacent the bottom of the fixture so that the panel can be swung to a position to give access to the interior of the fixture for inspection, cleaning or removal of parts. If desired, the panel can be completely removed from the fixture to give access to the interior thereof. When in operative position the detachable panel reduces glare from the source of illumination, such as one or more fluorescent lamps.

In the accompanying drawings which illustrate a preferred embodiment of my invention—

Figure 1 is a transverse section through the lighting fixture, the detachable light control panel being shown in dotted lines in its inoperative or open position;

Figure 2 is a partial perspective view showing a portion of the panel frame and one of the latches carried thereby;

Figure 3 is a partial longitudinal section taken through the fixture on the line III—III of Figure 1;

Figure 4 is a broken transverse section, on an enlarged scale, of the detachable light control panel; and

Figure 5 is a partial plan view and a partial section showing the manner of detachably connecting the panel to the fixture end member.

Referring more particularly to the accompanying drawings, the lighting fixture comprises an elongated base plate 2 located at the top of the fixture and adapted to be connected to any suitable support not shown. The fixture can be supported by relatively long rods so that it is spaced a considerable distance below the supporting surface, or it can be located in a recess in the supporting surface by relatively short rods. The elongated base plate 2 extends the full length of the fixture and at each end has secured thereto a transverse, downwardly extending end member 3. Transverse straps 4 are secured to the base plate 2 and in turn support a reflector 5 which is trough shaped in transverse section, as shown in Figure 1. Lamp holders or sockets 6 are secured to the straps 4, the sockets accommodating fluorescent lamps 7 which extend longitudinally of the fixture.

The fixture has two side panels 8 which are made of translucent plastic or other glare controlling material, these panels being supported in side frames 9. The lower ends of the side frames are curved inwardly to provide a central longitudinal opening extending substantially the full length of the fixture. The light control

panel, indicated generally by the reference numeral 10, fits into this opening which is located below the lamps 7. The end members 3 together with the side panels 8 and frames 9 form an enclosure having a longitudinal opening into which the light control panel 10 fits.

The light control panel comprises a plate 11 of translucent glass mounted in a frame. The frame comprises two side members 12a and 12b formed of channels and two end members 13 formed of angles. An angle member 12c is located inside of each of the channel members 12a and 12b in such position as to secure the plate 11 in the frame. Each of the panel frame end members 13 has a vertical flange 13a and a horizontal flange 13b. Each of the vertical flanges is provided with an upwardly opening slot 14 and L-shaped slot 15 spaced transversely of the flange 13a and adapted to receive, respectively, pins 16 and 17 which are secured to and extend inwardly from each of the end members 3. The L-shaped slot 15 has a horizontal portion 15a and a vertical portion 15b, the latter portion having a downwardly extending opening.

A latch 18 is secured to each of the panel frame end members 13 in such position as to engage the pin 16 which fits into the slot 14. The latch is urged to the operative position shown in Figure 2 by means of a spring 19 wound around a pin 20 which extends through an opening in the latch and is secured to the vertical flange 13a. One leg 19a of the spring is inserted in a slot 21 in the latch and the other leg 19b rests against the horizontal flange 13b at 22. The angle member 13 is provided with a slot 23 through which a portion of the latch extends to form an extension or handle 24 which lies below the glass plate 11 and is accessible from below the panel to release the latch from the pin 16.

In order to give access to the interior of the fixture, the light control panel 10 can be swung to the open position illustrated in dotted lines in Figure 1 by releasing the latches 18 from the two pins 16 so as to allow the panel to pivot on the pins 17. A feature of the invention is the provision of the L-shaped slots 15 for allowing this swinging movement of the panel. Enough clearance is allowed between the ends 9a and 9b of the side frames 9 and the sides 12a and 12b of the panel frame to allow the side 12b to drop slightly below the end 9b. Upon opening the panel further, the slot 15a moves to the left relative to the pin 17, thereby providing further clearance between the parts 9a and 12a for swinging the panel to its vertical position. When the panel

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is in its vertical position, the slot 15a is in a vertical position and the pin 17 is in the top of the slot 15a so that the panel cannot be accidentally displaced from the pins 17. Thus the provision of the L-shaped slot 15 insures clearance for the panel in swinging it to open position and provides a safety feature which prevents the panel when in vertical position from being accidentally jarred from the pin 17.

If it is desired to entirely remove the panel 10, it is first swung to its vertical position shown in dotted lines in Figure 1. It is then raised so that the pin 17 moves downwardly in the slot 15a to the juncture of the slot 15b, after which the panel is moved bodily to the left while still maintaining it in a vertical position, which causes the pin to move out of the slot 15b and releases the panel. When it is desired to replace the panel in operative position, the reverse steps are employed so as to first pivot the panel on the pins 17 and thereafter the panel is swung about the pivots to the closed position in which the latches 18 secure the pins 16 in the slots 14. The latches operate automatically to secure the pins since as the panel is raised and the pins come into contact with the sloping upper portions 18a of the latches, they move the latches to the right from the position shown in Figure 2, thereby allowing the pins to drop into the bottom of the slots, after which the springs move the latches to locking position.

It will be seen that by the arrangement described, the light control panel 10 can be quickly swung to open position and retained safely in that position, or it can be entirely removed from the fixture in order to give access to the interior of the fixture. Likewise, the panel can be quickly replaced in operative position.

Furthermore, since pins 16 and 17 are symmetrically spaced on end member 3 and slots 14 and 15 are symmetrically spaced on end members 13, it is possible to reverse the whole light control panel and thus pivot from the opposite side of the lighting fixture.

The invention is not limited to the preferred embodiment but may be otherwise embodied or practiced within the scope of the following claims.

I claim:

1. In a lighting fixture having an elongated base with transverse end members extending downwardly therefrom, a source of illumination carried by the base, an enclosure having a longitudinal opening below the source of illumination and extending substantially the full length of the fixture, and a light control panel located in said opening, means for detachably supporting said panel comprising two pins secured to and extending inwardly from and spaced transversely of each of said end members, a panel frame including vertical end flanges, each flange having upper and lower edges and being provided with a slot opening upwardly through the upper edge thereof, and a slot opening downwardly through the lower edge thereof for receiving said pins, and latches mounted on said panel frame, said latches each having a member adapted on movement of the latch to extend rigidly across the upwardly opening slots above the pins when they are in position in the slots, said members also engaging at least the upper surface of the pins when the panel is in position.

2. In a lighting fixture having an elongated base with transverse end members extending downwardly therefrom, a source of illumination carried by the base, an enclosure having a longitudinal opening below the source of illumination

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and extending substantially the full length of the fixture, and a light control panel located in said opening, means for detachably supporting said panel comprising two pins secured to and extending inwardly from and spaced transversely of each of said end members, a panel frame including vertical end flanges, each flange having upper and lower edges and being provided with a slot opening upwardly through the upper edge thereof, and a slot opening downwardly through the lower edge thereof for receiving said pins, and latches mounted on said panel frame, said latches each having a member adapted on movement of the latch to extend rigidly across the upwardly opening slots above the pins when they are in position in the slots, said members also engaging at least the upper surface of the pins when the panel is in position.

3. In a lighting fixture having an elongated base with transverse end members extending downwardly therefrom, a source of illumination carried by the base, an enclosure having a longitudinal opening below the source of illumination and extending substantially the full length of the fixture, and a light control panel located in said opening, means for detachably supporting said panel comprising two pins secured to and extending inwardly from and spaced transversely of each of said end members, a panel frame including vertical end flanges, each flange having upper and lower edges and being provided with a slot opening upwardly through the upper edge thereof, and an L-shaped slot for receiving said pins, said L-shaped slot having a downwardly extending opening, and latches mounted on said panel frame, said latches each having a member adapted on movement of the latch to extend rigidly across the upwardly opening slots above the pins when they are in position in the slots, said members also engaging at least the upper surface of the pins when the panel is in position.

4. In a lighting fixture having an elongated base with transverse end members extending downwardly therefrom, a source of illumination carried by the base, an enclosure having a longitudinal opening below the source of illumination and extending substantially the full length of the fixture, and a light control panel located in said opening, means for detachably supporting said panel comprising two pins secured to and extending inwardly from and spaced transversely of each of said end members, a panel frame including vertical end flanges, each flange having upper and lower edges provided with a slot opening upwardly through the upper edge thereof, and an L-shaped slot for receiving said pins, said L-shaped slot having a downwardly extending opening, and latches mounted on said panel frame, said latches each having a member adapted on movement of the latch to extend rigidly across the upwardly opening slots above the pins when they are in position in the slots, said members also engaging at least the upper surface of the pins when the panel is in position, said panel frame having an opening through which a portion of said latch extends, and an operating handle lying below said panel.

5. A detachable panel for a lighting fixture, which fixture includes an elongated base with transverse end members extending downwardly therefrom, each end member having two pins secured thereto and spaced transversely thereof and extending inwardly therefrom, a source of illumination carried by the base, and an en-

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sure having an opening below the source of illumination into which opening said detachable panel is adapted to fit, said detachable panel comprising a panel frame including vertical end flanges having upper and lower edges and being provided with a slot opening upwardly through the upper edge thereof, and an L-shaped slot for receiving said pins, said L-shaped slot having a downwardly extending opening, and latches mounted on said panel frame, said latches each having a member adapted on movement of the latch to extend rigidly across the upwardly opening slots above the pins when they are in position in the slots, said members also engaging at least the upper surface of the pins when the panel is in position, said latch having an operating handle extending below said panel.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,028,453	Hoffman -----	Jan. 21, 1936
2,283,782	Ashley et al. -----	May 19, 1942
2,327,230	Weber -----	Aug. 17, 1943
2,327,552	Poehling -----	Aug. 24, 1943
2,365,614	Winkler -----	Dec. 19, 1944
2,431,656	Barker -----	Nov. 25, 1947
2,440,603	Guth -----	Apr. 27, 1948
2,490,191	Baker -----	Dec. 6, 1949