Aug. 6, 1957 W. ISLER 2,802,096

RECESSED LIGHTING FIXTURES

Filed Feb. 6, 1956 2 Sheets-Sheet 1

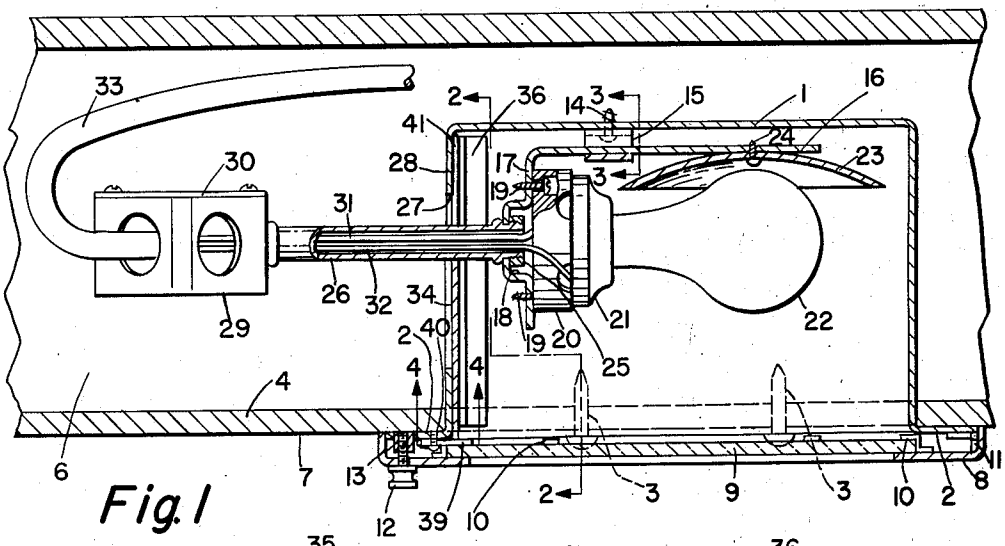


Fig. 1

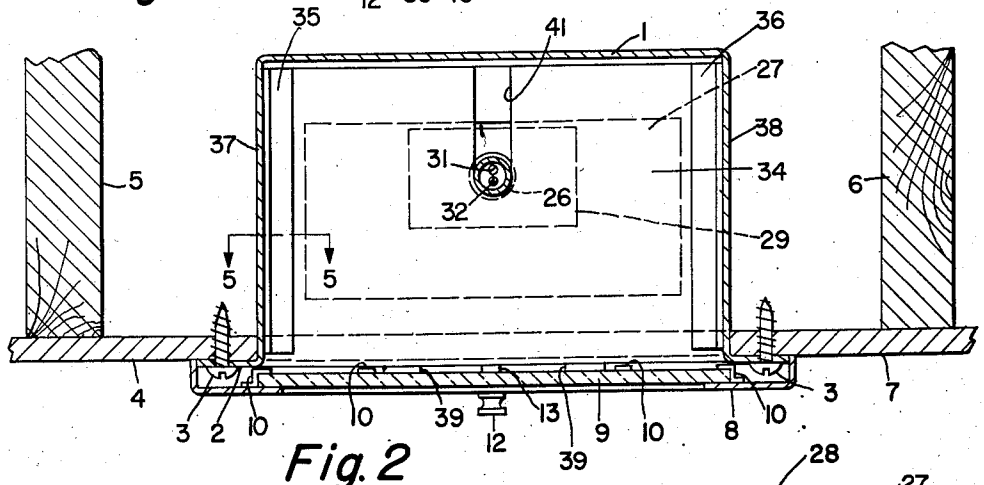


Fig. 2

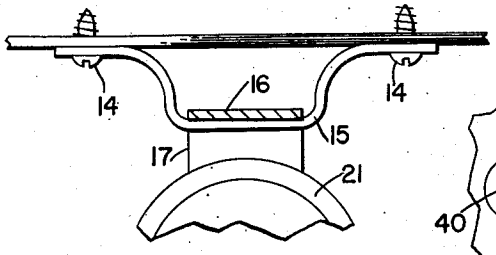


Fig. 3

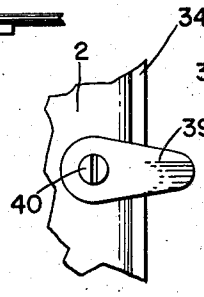


Fig. 4

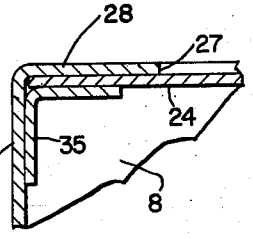


Fig. 5

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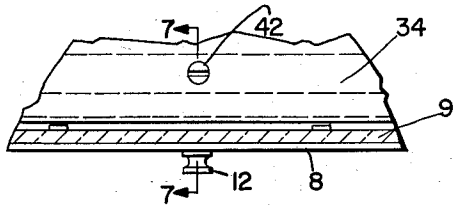


Fig. 6

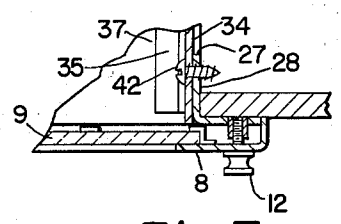


Fig. 7

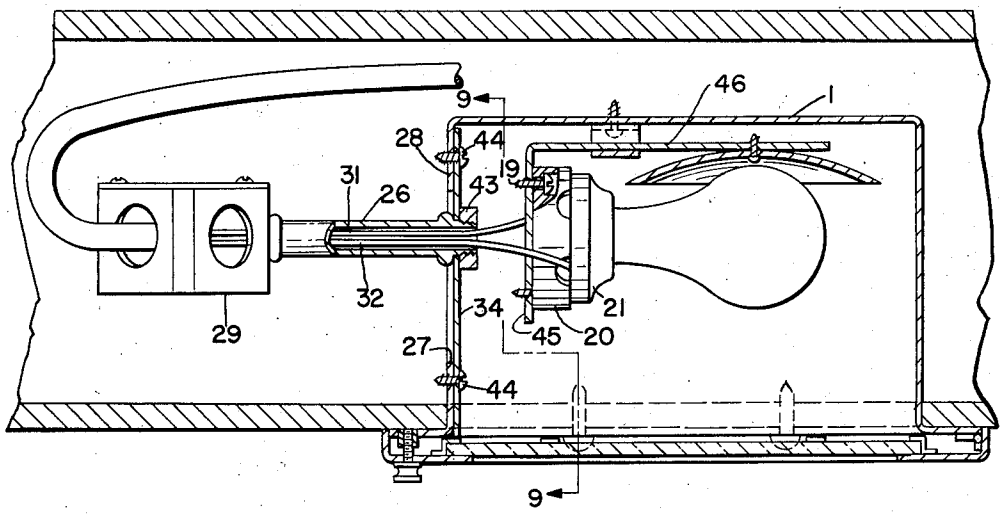


Fig. 8

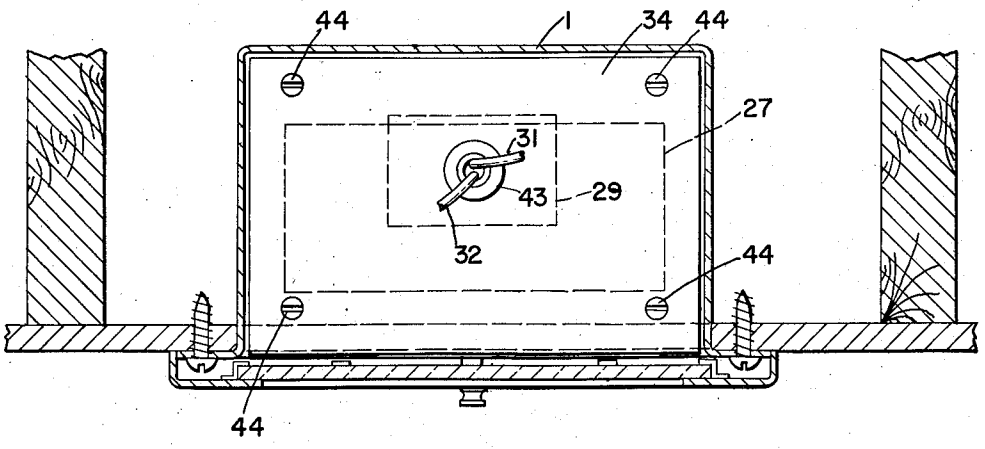


Fig. 9

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RECESSED LIGHTING FIXTURES

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Application February 6, 1956, Serial No. 563,725

1 Claim. (Cl. 240—78)

This invention relates generally to recessed lighting fixtures.

Lighting fixtures of the prior art utilizing an assembly consisting of a panel removably secured to a lamp housing, a junction box rigidly secured to the panel, and a lamp socket which is rigidly secured to the panel, this assembly being removable as a unit from the lamp housing for repair or inspection purposes.

The aforesaid components present a somewhat cumbersome and heavy assembly, which is not only difficult to assemble, but is somewhat difficult to manipulate as a unit, and is also objectionable in that it imposes a fairly heavy load on the panel, which supports the weight of all the components.

The present invention has, as its primary object, an arrangement of the aforesaid components which renders the components readily removable from the lamp housing for access, repair or inspection purposes, while relieving the panel of the load of the junction box, lamp socket, lamp and elements which interconnect the junction box with the lamp socket.

Another object of the invention is to provide a lighting fixture of the character described in which the lamp housing is provided with an opening through which the junction box may be passed, and which opening is normally closed by a panel which is slidably associated with the lamp housing.

A further object of the invention is to provide a lighting fixture of the character described, in which heat transmission from the lamp socket, lamp and lamp housing to the panel, and from the panel to the junction box is reduced to a minimum.

A still further object of the invention is to provide novel means for supporting the slidable panel in its normal position in the lamp housing.

Other objects and advantages of my invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Fig. 1 is a fragmentary cross-sectional view, showing the principal features of the invention;

Fig. 2 is a cross-sectional view, taken on the line 2—2 of Fig. 1;

Fig. 3 is a fragmentary cross-sectional view, taken on the line 3—3 of Fig. 1;

Fig. 4 is a fragmentary cross-sectional view, taken on the line 4—4 of Fig. 1;

Fig. 5 is a fragmentary cross-sectional view, taken on the line 5—5 of Fig. 2;

Fig. 6 is a fragmentary view, similar to Fig. 2, but showing a modification of the invention;

Fig. 7 is a fragmentary cross-sectional view, taken on the line 7—7 of Fig. 6;

Fig. 8 is a view similar to Fig. 1, but showing another modification of the invention, and

Fig. 9 is a cross-sectional view, taken on the line 9—9 of Fig. 8.

Referring more particularly to Figs. 1 to 5 of the drawings, reference numeral 1 designates a lamp housing comprising a metal box having a marginal flange 2 which is apertured to receive screws 3 for connecting the box to the ceiling 4 or other wall, it being understood, for the purposes of the present invention, that a ceiling is included under the generic term "wall," as hereinafter used.

The wall 4 comprises spaced joists 5 and 6, to which lath and plaster 7 has been applied in the usual way. The box 1 is received in the inter-joist space in a manner which is customary in the use of such fixtures.

The box 1 is provided with a closure comprising a metal frame 8 to which a transparent glass panel 9 is secured, as by clips 10. The frame 8 is pivotally secured to the flange 2, as by hinges 11, so that the closure may be dropped to a vertical or other position when access to the interior of the box 1 is desired, and is normally maintained in the closed position shown by means of a screw 12 which is secured to the frame 8 and may be threaded into a socket 13, which is secured in the flange 2.

Removably secured to the top wall or ceiling of the box 1, as by sheet metal screws 14 (see Figs. 1 and 3), is a U-shaped bracket 15, which depends into the box, and to which is spot welded a bracket 16, provided at one end with a depending flange 17, the intermediate portion of which is bent to provide a recess 18, for a purpose to be presently described.

Secured to the flange 17 of the bracket 16, as by screws 19, is the base portion 20 of a lamp socket 21, in which the bulb 22 is mounted. A reflector 23 is secured to the bracket 16, just above the bulb 22, as by a screw 24.

Rigidly secured to the flange 17 of the bracket 16, as by a nut 25, is a conduit 26 which extends outside the lamp housing 1 through a rectangular opening 27 in a side wall 28 of the housing. The nut 25 is disposed in the recess 18 of the flange 17 and is thus spaced from the base 20 of the lamp socket.

The conduit 26 is secured to and supports a conventional junction box 29, having a removable cover 30. The conduit 26 is secured to and supports a conventional junction box 29, having a removable cover 30. The conduit 26 carries the wires 31 and 32 from the junction box to the lamp socket 21, and connection to these wires is made, in the customary way, inside the junction box, from BX cable 33.

A panel or closure 34 is provided for the opening 27. This panel comprises a rectangular plate, which is slidable in guides or tracks provided between the wall 28 of the housing 1 and angles 35 and 36 which are welded to the side walls 37 and 38 respectively of the housing (see Fig. 5). The plate 34 is supported in operative position by means of lugs 39 which are pivotally secured to the flange 2, as by screws 40 (see Fig. 4). The plate 34 is also provided in its upper edge with an elongated recess 41 for the purpose of enabling the plate to clear the conduit 26 when the plate is slid upwardly to its operative position.

When it is desired to gain access to the junction box 29 for inspection or other purposes, the closure 8 is dropped to a vertical position, in the manner previously described, the lugs 39 are turned about their pivots to release the panel 34, and the panel is slid downwardly and removed from the lamp housing. The lamp 22 is removed from the socket 21, and the screws 14 then removed, permitting the brackets 15 and 16, lamp socket 20—21, conduit 26, and junction box 29 to be withdrawn as a unit to a position in which the inspector can easily remove the cover 30 and inspect to junction box. In the course of such withdrawal, the box 29 is passed through the opening 27 to a position inside the housing 1, this being permitted by virtue of the flexibility and length of the cable 33.

It is thus seen that I have provided an arrangement of the components which is readily removable from the lamp housing for access, repair or inspection purposes. At the same time, the panel **34** is relieved of the load of the junction box, lamp socket, lamp, and interconnecting elements which include the conduit **26** and bracket **16**. Furthermore, a unique means has been provided for closing the opening **27**, in the form of a closure plate or panel which is slid into operative position, is maintained in operative position by the lugs **39**, and is withdrawable from such position by gravity of its own weight.

The panel **34** is effective to prevent transmission of heat from the interior of the lamp housing to the junction box **29**, and the transmission of heat from the plate **34** to the conduit **26** is virtually negligible, since the conduit has virtually no contact with this plate. Moreover, transmission of heat from the lamp to the housing **1** is reduced to a minimum, by virtue of the fact that the only attachment of parts inside the housing with the inner wall of said housing is through the bracket **15**.

In Figs. 6 and 7, a modification is shown, in which the plate **34**, instead of being maintained in operative position by lugs **39**, is maintained in position by means of a single screw **42** which extends through the plate **34** and into the wall **28** of the lamp housing.

In Figs. 8 and 9, a modification is shown, in which the conduit **26** is not secured to the bracket which supports the lamp base or socket, but, instead, is rigidly secured to the plate **34**, as by means of a nut **43**, and the panel **34** is removably secured to the wall **28** by means of four screws **44**. The wires **31** and **32** are connected to the lamp socket **21** in the usual way.

The base **20** of the lamp socket **21** is secured, as by screws **19**, to the flange **45** of a bracket **46**, which is supported by the top of the box **1** in the same manner that the bracket **16** of the previously described form of the invention is supported, so that further description thereof is believed unnecessary.

In this case, removal of the junction box **29** for inspection or other purpose, is accomplished by first removing the bracket **46**, after which access to the screws **44** may be had, these screws removed, the plate **34** removed, and the junction box then passed through the opening **27** into the lamp housing **1**.

Due to the direct connection of the conduit **26** to the plate **34**, this form of the invention is not as desirable as that shown in Figs. 1 to 7, but has an advantage in that the bracket **46** is not directly connected to the conduit **26** or to the plate **34**, so that direct heat transmission from the parts inside the lamp housing to the conduit and plate are reduced to a minimum, there being a substantial air gap between the nut **43** and the flange **45** of the bracket **46**.

It is to be understood that the forms of my invention, herewith shown and described, are to be taken as preferred examples of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to, without departing from the spirit of my invention, or the scope of the subjoined claim.

Having thus described my invention, I claim:

A lighting fixture of the wall-recessed type comprising a housing having a side wall and an opening therein, a panel normally closing said opening and removable to expose said opening, means detachably connecting said panel with said housing, lamp socket means supported on another wall of said housing, a junction box disposed externally of the housing opposite said opening and provided with means connecting it with said lamp socket means for support therefrom and unitary movement therewith, said junction box having a removable closure, and wiring from said junction box to said socket means and including connections within said junction box adapted to be exposed within said housing when said socket means and junction box are unitarily moved into the housing, the said housing opening normally closed by the panel being of sufficient dimension to pass the junction box to expose its closure upon the occasion of such movement, said panel being provided with an elongated slot to provide clearance for the means connecting the junction box with the lamp socket means.

References Cited in the file of this patent

UNITED STATES PATENTS

1,799,304	Logan	Apr. 7, 1931
2,152,197	Levy	Mar. 28, 1939
2,717,955	Schwemmer et al.	Sept. 13, 1955