

Feb. 19, 1963

F. C. WINKLER

3,078,366

LUMINAIRE

Filed Jan. 16, 1958

3 Sheets-Sheet 1

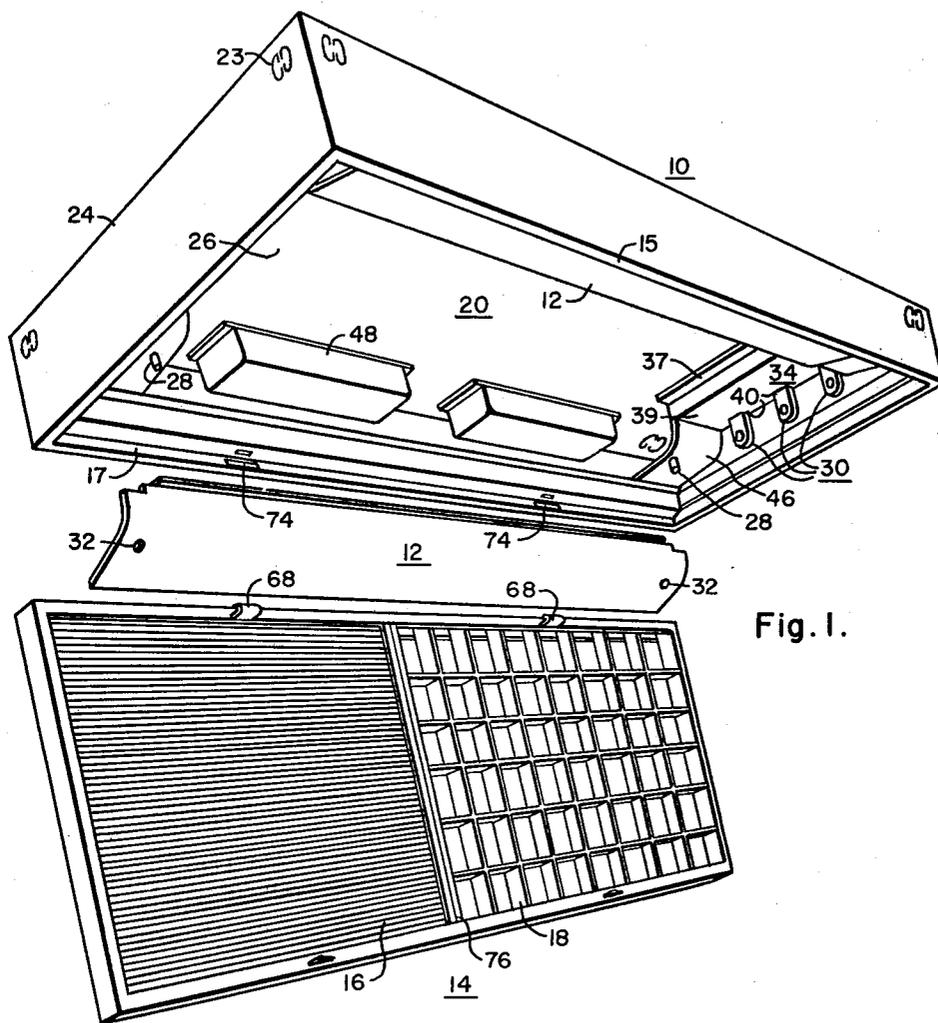


Fig. 1.

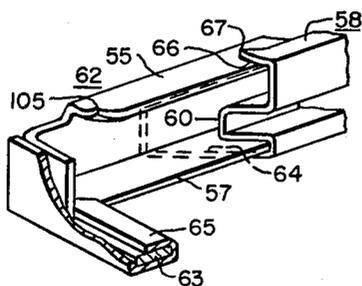


Fig. 12.

WITNESSES:  
*Bernard R. Ciegney*  
*A. K. Field*

INVENTOR  
 Frederic C. Winkler  
 BY *G. M. Crawford*  
 ATTORNEY

Feb. 19, 1963

F. C. WINKLER

3,078,366

LUMINAIRE

Filed Jan. 16, 1958

3 Sheets-Sheet 2

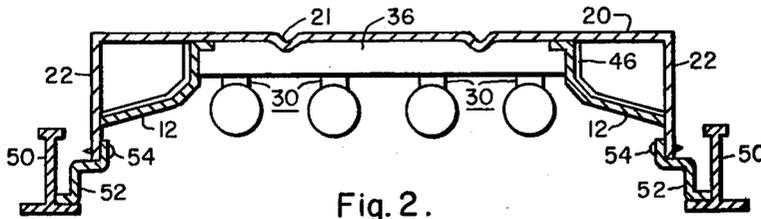


Fig. 2.

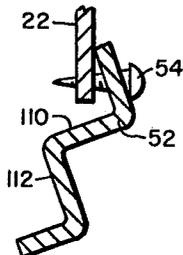


Fig. 3.

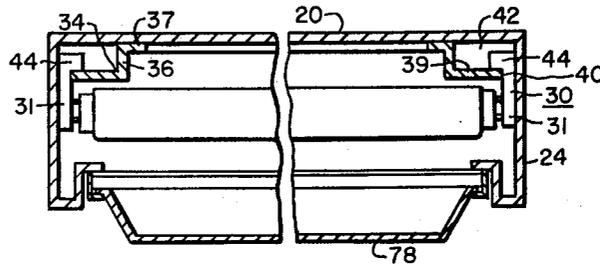


Fig. 4.

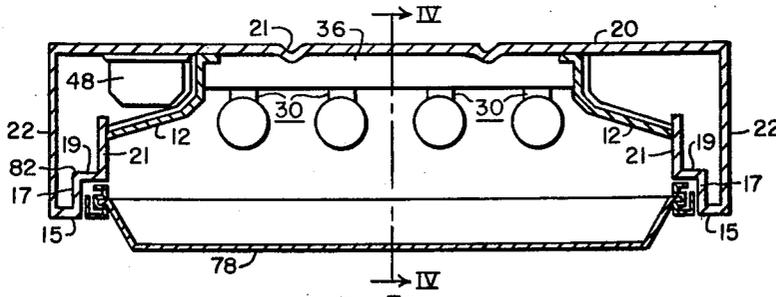


Fig. 5.

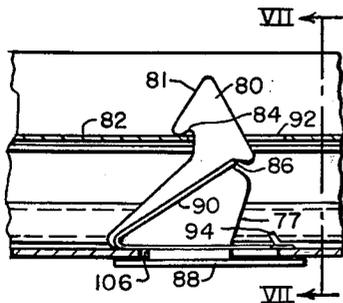


Fig. 6.

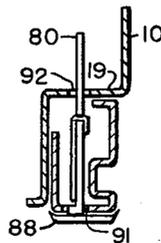


Fig. 7.

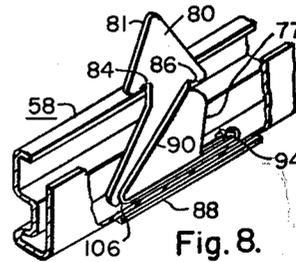


Fig. 8.

Feb. 19, 1963

F. C. WINKLER

3,078,366

LUMINAIRE

Filed Jan. 16, 1958

3 Sheets-Sheet 3

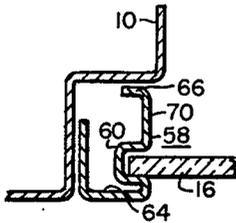


Fig. 9.

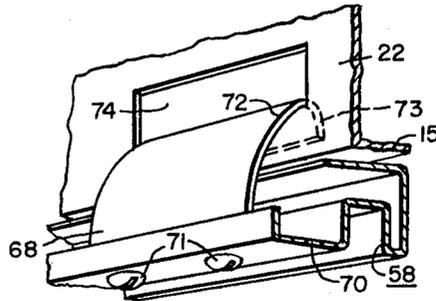


Fig. 10.

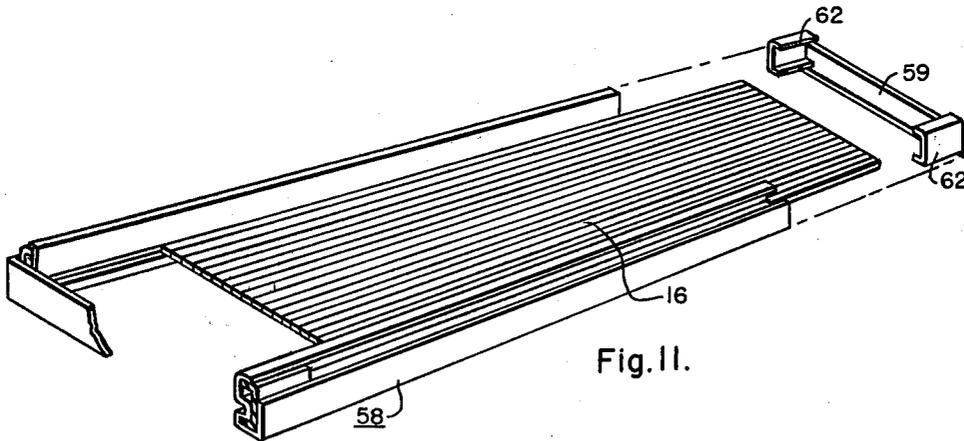


Fig. 11.

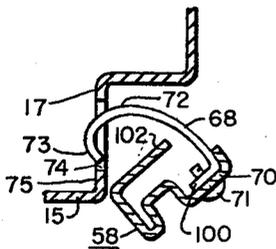


Fig. 13.

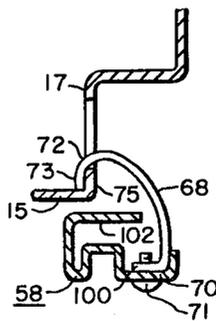


Fig. 14.

1

3,078,366  
LUMINAIRE

Frederic C. Winkler, Cleveland, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Filed Jan. 16, 1958, Ser. No. 709,313  
8 Claims. (Cl. 240—51.11)

This invention relates, generally, to luminaires and, more particularly, to fluorescent luminaires adapted for recessed and surface mounting as both an individual unit or in a continuous row for direct lighting purposes.

The object of my invention, generally stated, is to provide a fluorescent luminaire which is of simple and economical construction, which may be readily and easily installed and serviced, which has a pleasing and ornamental appearance, and which has a relatively high efficiency.

Another object of this invention is to provide a construction for a luminaire of the character described wherein the body member is in the form of a lightweight unit or assembly which may be readily attached to the ceiling or other supporting surface, and to which the door and shielding media are hingedly mounted in a readily detachable manner.

A further object of this invention is to provide, in a luminaire of this type, for so mounting the side reflectors within the body member that they may be readily detached from the body member.

A still further object of this invention is to provide, in a luminaire of this type, for mounting the side reflectors in detachable manner so as to provide ready access for maintenance purposes.

A further object of my invention is to provide a stiff, shallow combined wiring channel and reflector member to conceal lamp ballasts, wiring and other parts of such luminaire.

Still another object of my invention is to provide a construction for a luminaire of the character described, wherein the body member is in the form of a lightweight unit or assembly which may be readily adapted to incorporate various mounting arrangements necessary for numerous different types of ceilings.

A further object of my invention is to provide in a luminaire of this type, for mounting the shielding media in a removable state so that various designs and configurations may be selected and used to give the decorative and light distribution effect desired.

Another object of my invention is to provide a fluorescent luminaire of a type which has a door member actuated by a latch which is positive, inexpensive, light tight and inconspicuous.

A further object of my invention is to provide a fluorescent luminaire of a type which has a door member rotatably and detachably mounted which is positive, inexpensive and inconspicuous.

Still another object of my invention is to provide a stiff, shallow combined wiring channel and luminaire so that electric circuit wiring may be easily installed at the ends and sides of the luminaire.

Another object of my invention is to provide a luminaire which is adaptable to be manufactured in a variety of sizes incorporating interchangeable elements throughout.

These and other objects of my invention will become more apparent upon consideration of the following detailed description of preferred embodiments thereof, when taken in conjunction with the attached drawings in which:

FIGURE 1 is a perspective, partially exploded view of a lighting fixture, which is adapted to use a door and latch constructed in accordance with the principles of my invention;

FIG. 2 is a cross-sectional view of a luminaire similar

2

to that shown in FIG. 1 but having a grid type flange on the housing thereof;

FIG. 3 is a cross-sectional view of the grid type flange shown in FIG. 2 showing the support holding screw loosened;

FIG. 4 is a longitudinal sectional view of the lighting fixture shown in FIG. 5, with the hinged door in the closed position taken along the lines IV—IV thereof;

FIG. 5 is a cross-sectional view of the lighting fixture shown in FIG. 1;

FIG. 6 is a side view of the latch mechanism in place with a part of the lighting fixture shown in section;

FIG. 7 is an end view of the latch mechanism shown in FIG. 6 with part of the lighting fixture in section taken along the line VII—VII of FIG. 6;

FIG. 8 is a perspective cross-sectional view of the latch mechanism and a part of the lighting fixture shown in FIG. 6 with part of the latter broken away;

FIG. 9 is a cross-sectional view of a part of the door frame and part of the fixture with the door shown in the closed position;

FIG. 10 is a perspective view of the hinge mechanism assembled to a part of the door frame;

FIG. 11 is an exploded perspective view of the door frame with the shielding media partially in place and with part of the frame broken away;

FIG. 12 is an exploded perspective view of a part of the door frame side and end assembly;

FIG. 13 is a cross-sectional view of one side of the hinge and door frame and a part of the housing with the door at an angle of 40° from the vertical; and

FIG. 14 is a cross-sectional view similar to FIG. 13 except that the door frame is in the fully open position.

While the invention herein disclosed is a fluorescent lighting fixture mounted on or recessed in the ceiling, it should be understood that the invention in its various aspects may be utilized in ceilings other than those specifically disclosed. Consequently, the following disclosure is not intended to be limited to any one particular type of ceiling utilized with a lighting fixture constructed in accordance with my invention.

Referring to FIG. 1, it will be seen that a luminaire constructed in accordance with one embodiment of my invention comprises, generally, a body member or housing 10, reflectors 12, and a door assembly 14 containing the shielding media 16 or 18, both of which may be interchangeably used.

FIG. 1 shows the general make-up or arrangement of the luminaire and is not intended to show all of the structural details. The luminaire shown in this instance is of the surface mounting type adapted for installation as a single unit or in rows to form a continuous luminaire. In other words, a number of these luminaires may be mounted in direct end to end relation to form a continuous row or may be mounted in patterns to form various designs or they may be mounted with other forms of light-producing units interposed between units individually mounted.

The housing member 10, as shown in FIG. 1, is in the form of an elongated housing closed at the top and having a relatively large rectangular bottom opening. In actual use, the housing member 10 may vary from a square configuration to a long, narrow, elongated shape, depending upon the illumination desired. The housing member 10, made of any suitable sheet metal material, may comprise a top panel 20 having integral side panels 22 formed from the same material in one operation. Top panel 20 may have reinforcing ribs 21, as shown in FIGS. 2 and 5, running the length of the housing member 10 to give increased rigidity to the structure. End panels 24 may be attached to the top panel 20 and the side panel 22 by any suitable means, as for example by means

3

of screws. The side panels 20 may be formed at their lowermost edges to numerous different shapes, two of which are shown in FIG. 2 and FIG. 5. The type of ceiling and the manner of mounting the luminaire will determine the cross-sectional configuration of the lower side edges of the luminaire. Housing member 10 (FIG. 1) is thereby provided with an elongated bottom opening 26 and with the usual mounting openings and knockouts 23 as shown.

The housing member 10 is of lightweight construction and is adapted for installation without the reflector assemblies 12 and door assembly 14 attached. The arrangement is such that these elements of the complete luminaire may be readily attached to the body member after it is installed on the ceiling or other supporting surface.

The necessary lampholders 30 are mounted in the housing assembly 10 by a lampholder support 34 at each end. Each lampholder support 34 is formed from any suitable metal material which is attached to the top panel 20 by any suitable detachable means, preferably by metal screws, not shown, associated with a flange 37 formed integrally therewith. The lampholder support 34 has an inner laterally extending panel 36 connecting the flange 37 with the plate 39, as shown in FIG. 4. Lampholder support 34 has the horizontally disposed plate 39 which extends from the connecting panel 36 toward the adjacent end panel 24 of the housing assembly 10. At the junction of the lampholder support 34 and the end panels 24, the lampholder support has a number of cutouts 40 (FIG. 1) made in the horizontal section 39 of the lampholder support 34. The size of the cutouts 40 is determined by the cross-sectional area of the lamp prong receiving ends 31 of the lampholders 30 that will be used in the luminaire. Also the number of cutouts is determined by the number of lampholders 30 that will be used in the luminaire. The lamp prong receiving ends 31 of lampholders 30 are extended through the cutouts and below the horizontal plates 39 of the lampholder supports 34, and are thereby exposed to the bottom opening 26 of the housing assembly 10. In designing the lampholder supports 34 in this manner, a lampholder support wireway 42 is defined by each end panel 24, the top panel 20 and the lampholder support 34. This wireway 42 extends across both end panels 24 of the housing assembly 10. Each wireway 42 also provides easy access to the connector terminal ends 44 of the lampholders 30 which are mounted on top of the plate 39 of the lampholder supports 34, for example, by screws. In assembling the luminaire, necessary wiring may first be connected to the lampholders 30 at their connector ends 44 and then the lampholders 30 are secured in position on the lampholder support 34 with their prong receiving ends 31 extending downwardly as shown. Each lampholder support 34 is then positioned in place with its flange 37 against the top panel 20 and the outer side edge against the end panel 22, and secured in place by suitable detachable means such as bolts (not shown) passing through the flange 37 and top panel 20. It will be apparent that all of the necessary wiring and connections to the lampholders 30 will be concealed by the lampholder supports 34, when they are secured in normal operating position. At each end of each lampholder support 34, a curved portion 46 extends downwardly and outwardly to engage the adjacent side panel 22 of the housing assembly 10. Attached to the curved portions 46 are downwardly extending studs 28 (FIG. 1).

A reflector 12 is detachably mounted to each of the curved end portions 46 of the lampholder support 34 at each side by studs 28 passing through holes 32 of the reflector and barrel nuts (not shown). Ballasts 48 are mounted to the top panel 20 and are located close to one or both of the side panels 22 of the housing assembly 10. When the reflectors 12, made of any suitable reflecting material, are mounted in their operative positions,

4

the reflectors 12 conceal the ballasts 48 from view. FIG. 5 shows the relative locations of the ballasts 48 and the reflector 12 at one side.

It will be apparent that by means of this arrangement, the lampholders 30, lampholder supports 34, wiring, ballasts 48 and reflectors 12 may be assembled and mounted in the housing assembly 10 after it has been mounted upon the ceiling. The detachable mounting of the reflectors 12 and lampholder supports 34 permits ready access to the electrical elements at any time without removing or otherwise disturbing the housing assembly 10 or adjacent units.

An important aspect of my invention is the adaptability of my housing assembly to various common ceiling mounting arrangements. FIGURE 1 illustrates the type of housing that would be used for a ceiling surface mounted luminaire. In this type of luminaire, the housing assembly 10 is mounted by means of bolts or screws (not shown) passing through the knockouts 23 located in the top panel 20 and closely adjacent the side panels 22 so as to be concealed by reflectors 12. In this form of the invention, a cross-sectional view of which is shown in FIG. 5, the side panels 22 are bent inwardly of the bottom opening 26, to form horizontal portions 15. Each of the panels is then bent upwards to form the inner wall 17 of the opening 26, which wall has a depth approximately equal to the depth of the door assembly 14. Horizontal panel 19 then extends inwardly of the opening 26 a distance slightly greater than the width of the door assembly 14, where it is then bent vertically upwards forming an inner side panel 21. Reflectors 12 are attached to the curved portions 46 of the lampholder supports 34, and extend the length of housing 10. The reflectors, in operative position, extend from the top panel 20 to the inner side panel 21 when they are used in this type of luminaire.

In FIG. 2, a grid-type mounting arrangement is shown. With this type of arrangement, the ceiling panels, not shown, are supported by grid support runners 50, which have a cross-sectional shape of an inverted T-bar, as shown. A side runner 52, shown in FIGS. 2 and 3, having a zig-zag cross-section, is attached to the inner, bottom surface of each of the side panels 22 by holding screws 54. To mount the luminaire, the holding screws 54 are threadedly loosened from the side panel 22 to allow the side runner 52 to dangle inwardly as shown in FIG. 3. The housing assembly 10 may then be inserted through the opening between adjacent grid support runners 50. Once the housing 10 has been inserted through the opening, the side runner 52 may be positioned on the T-bar 50 and holding screws 54 may be tightened in the side panels 22. Slots, not shown, located in the horizontal portion 110 and the vertical portion 112 of the side runners 52 for each luminaire are placed to receive the latch 80 and the hinge 68, respectively, when the luminaire has a door assembly 14 to cover the bottom opening 26 of the housing 10. After the housing assembly 10 supported by the side runners 52 is located in the ceiling, then the lowermost portion of the luminaire is substantially flush with the ceiling.

A light metal frame door assembly 14 covers the bottom of the housing assembly 10. The door frame on opposite sides is formed by a metal channel 58, bent as shown in FIGS. 9 and 12, having a cross-section of a substantially rectangular shape with one corner open and with a C-shaped intermediate runner channel 60 formed to extend inwardly of the inner side of the channel. The intermediate runner channel 60 will support one side edge of the shielding media or light control element 16, which may be slidably inserted longitudinally into the runner channel 60 of the door frame channel 58. Right angular shaped corner clips 62, as shown in FIGS. 11 and 12, are located at the ends of the door frame metal channels 58. One arm of each corner clip 62 is channel shaped in sec-

5

tion having flanges 57 and 62, with the other arm of the clip comprising tang 63 extending outwardly from the lower flange 57 and which is frictionally inserted into the rolled end portion 65 of the end frame member 59 as shown in FIGS. 11 and 12. The end frame member 59 is mitred 45° at its ends abut with the end of the door frame metal channel 58, which is also mitred to a 45° angle. The upper flange 55 of the corner clip has a projection 105 at one end bent upwardly located at the inner corner. When the channel arm of the corner clip 62 is inserted into the door frame metal channel 58, with a relatively close fit, upper flange 55 and lower flange 57 of the corner clip 62 frictionally engage the upper inner surface 66 and the lower inner surface 64 of the door frame metal channel 58, respectively. Corner clip projection 105 is forced downwardly when it engages the upper inner surface 66, and thereby increasing the friction between these parts to securely fasten the corner clip 62 to the door frame metal channel 58. Channel projection 67, located at the outer end of the upper surface of door frame metal channel 58, and bent upwardly, may be bent downward after the corner clip 62 is fully inserted in the door frame metal channel 58 to engage the outer end of flange 55 to securely hold the corner clip 62 and the end frame member 59 in place. To remove the corner clip 62, the channel projection 67 should be bent upwardly. The corner clips 62 thus closely frictionally engage in the door frame metal channels 58 to securely hold the end members 59 and hence the shielding media 16 in place, and also to provide a door frame about all four sides of the shielding media of uniform bottom design.

Spaced hinges 68, as shown in FIGS. 10 and 13, have a flange 100 which is fastened to the channel portion 70 of the door frame metal channel 58 by screws 71. Each hinge 68, made of a suitable metal, extends outwardly of the door frame channel in a generally arched shape. At its outer tip 72, the hinge 68 is reversely bent inwardly, forming a hook shaped portion 73 in cross-section. In the inner lower portion of the side walls 22 (FIGS. 1 and 10) of the housing assembly 10, slots 74 are provided spaced above the horizontal portion 15 of each side panel 17 to provide a vertical flange 75 which is engaged by the hooked shaped portion 73, of hinges 68 when the door assembly 14 is in an open position. As shown in FIG. 14, the hinge 68 may not be removed from its slot 74 when it is in its fully open position, as the channel portion 102 will strike the horizontal portion 15 of the housing 10 as door frame metal channel 58 is moved upwardly before the hook portion 73 clears the top of flange 75. At an intermediate open position, for example at the 40° position, as shown in FIG. 13, the door frame metal channel 58 may be moved upwardly to clear the horizontal portion 15 of the housing 10. The outer tip 72 strikes the upper edge of the slot 74, but the slot is wide enough to clear the outer tip 72 and the hook shaped portion 73 so that they may be withdrawn from the slot 74. If the door frame metal channel 58 is tilted at an angle substantially greater than 40°, as for example 50°, then if the door is lifted the outer tip 72, of hinge 68, strikes the upper edge of the slot, but the hook shaped portion 73 will not be raised a distance sufficient to clear the flange portion 75 of the slot 74 because of the curvature of hinge 68. The door frame metal channel 58, and thus the door 14, is rotatably supported in the housing assembly 10 by the hinge 68 in both open and closed positions, but can only be removed from the housing 10 when the door 14 is tilted at a predetermined intermediate angle, for example an angle of approximately 40°. The door hinges 68 may be inserted in the slots 74 at either side of the housing 10.

In FIG. 1, it is to be noted, that two different types of shielding media may be used in the door frame 14 if it is so desired. As pictured, a solid light control element 16 and a louver type element 18 may both be inserted

6

in the door assembly 14 separated by a spacer portion 76, slidably placed in the door frame metal channels 58. Various type of shielding media may be used, of which a dished plastic diffuser type 78 is shown in cross-section in FIGS. 4 and 5. The shielding media may be readily interchanged at will according to the lighting needs desired, by removing one end frame member 59 as shown in FIG. 11 and the associated corner clips 62, and slidably removing the shielding media.

The door assembly 14 is held in the closed position by two or more latches 80 which engage the upper surface of panel 19 of the housing assembly 10, through a slot 92, as shown in FIG. 7. The latch 80, as shown in FIGS. 6 and 8, is formed from a flat piece of metal, having two spaced offset indentations 84 and 86 on opposite sides of the latch 80. Indentation 84 forms a hook to engage the upper surface of panel 19 of the housing assembly 10, when the door is in the closed position. The latch 80 is rigidly mounted on a slide plate 88, for example, by welding, which actuates the latch mechanism. Slide plate 88 is located on the bottom surface of door frame metal channel 58. Latch 80 extends perpendicularly to the slide plate 88, through the bottom slot 91 of the door frame metal channel and the slot 92 of the housing assembly 10. In FIG. 6 an actuating spring 90, having a generally U-shape, is located at one end by a projection 94 of the door frame metal channel 58, about which one end of the spring may be wrapped. The other end of the generally U-shaped actuating spring 90 is reversely bent to form a hook to receive one edge of the latch 80 at the indentation 86, thereby putting the actuating spring under stress. The spring 90 thus acts to bias the latch 80 upwardly to cause engagement of the slide plate 88 with the lower surface of the door frame, and at the same time biases the latch to one end of the slot 91. There is a slot 106 formed between the side plate 88 and the latch 80 at the same side as indentation 84 which slidably receives the part of door frame metal channel 58 at the adjacent end of slot 91, thus preventing the latch 80 from dropping out of slot 91. As the door 14 is closed, the latch plate 88 enters slot 92 until the cam surface 81 of the latch 80 strikes the adjacent end of the slot 92 of the housing wall 10. Since the latch 80 is resiliently biased by the actuating spring 90 when the cam surface 81 of the latch 80 strikes the end of slot 92, the latch 80 is moved towards the projection 94, while further stressing the spring 90. When the latch 80 is fully inserted into the slot 92, the latch 80 moves back to its latching position where the indentation 84 receives the adjacent end of slot 92 and locks to the upper surface 82 of the panel 19. Projection 94 also acts as a stop to restrict the movement of latch 80 when it moves towards the projection 94 by engaging rear edge 77 of latch 80.

The latch slide plate 88 in latching position is broad enough and long enough to cover the slot 91 in the door frame metal channel 58 so that no light will escape through the latching mechanism. Depending on the length of the door assembly desired, two or more latch assemblies may be used.

In view of the foregoing detailed description of preferred embodiments of my invention, it will be apparent that I have provided a luminaire construction which is especially adapted for recessed or flush mounting. I have also produced a luminaire which has a desirable appearance both in its physical make up and also when lighted and in use. In addition, the luminaire of this invention is extremely simple to install and maintain.

While I have described specific embodiments of my invention, it is to be understood that the principles thereof may be utilized in other specific embodiments without departing from the spirit of my invention.

I claim as my invention:

1. A luminaire for use with elongated electric discharge lamps comprising in combination, a housing of

an elongated hollow construction having end walls and side walls and a top wall, said walls having knockout portions to provide wiring access openings, a lampholder support secured to the inner surface of said housing at each end thereof, said lampholder supports forming first wiring channels disposed between said supports and said housing ends respectively and extending across the ends of the luminaire, opposed lampholders mounted on said supports respectively, elongated reflectors mounted respectively at opposite sides within said housing and extending longitudinally between said supports, said reflectors each having its lateral edges engaging the adjacent top and side walls of said housing to define a second wiring channel therebetween, said first and said second channels forming a continuous wiring channel about the periphery of said luminaire and communicating with said knockout portions.

2. A luminaire for use with elongated electric discharge lamps comprising in combination, an elongated housing having end walls and side walls and a top wall, opposed lampholder supports mounted respectively adjacent the end walls of said housing, said lampholder supports and said end walls forming wiring channels, elongated reflectors mounted respectively at opposite sides within said housing, said reflectors each having its lateral edges engaging the adjacent top and side walls of said housing to define a wiring channel therebetween, said wiring channels communicating with one another so as to form a continuous wiring channel about the periphery of said luminaire, and detachable light transmitting means for closing a bottom opening of said housing.

3. A luminaire for use with elongated electric discharge lamps comprising in combination, a housing of an elongated hollow construction having end walls and side walls and a top wall, said housing having a bottom opening defined by a flared skirt extending about the periphery of the opening, said skirt having a recessed laterally extending portion, opposed lampholders mounted in said housing adjacent said end walls, a door frame detachably and pivotally secured to said skirt, said door frame engaging said skirt at said recessed laterally extending portion, said door frame being flush with the lower edges of said housing end walls and said walls in the closed position, a latch having a keeper extending through an opening in the door frame and engaging an opening in said recessed laterally extending skirt portion to secure said door frame in the closed position, said latch having a slide secured to said keeper to actuate said latch, said keeper having a knee portion pivotally engaging said door frame adjacent one end of said latch opening, resilient means biasing said keeper in an inward direction toward said end of said latch opening engageable with said knee portion, said slide juxtaposed with the bottom surface of said door frame and completely covering said opening in the door frame at least in said closed position to thereby provide a light-tight latching mechanism.

4. A luminaire for use with elongated electric discharge lamps comprising in combination, a housing of an elongated hollow construction having end walls and side walls and a top wall, opposed lampholder supports secured respectively to said housing adjacent the ends thereof, said lampholder supports each being spaced from the adjacent portion of at least one of said top and said end walls to form a transverse wireway at each end of the housing having end openings adjacent to but spaced from each side wall, opposed lampholders secured respectively to said lampholder supports, elongated reflectors removably secured adjacent the ends of said lampholder supports and extending between said opposed lampholder supports, said reflectors each having their lateral edges engaging the adjacent top and side walls respectively to enclose wireways communicating to form with said transverse wireways a continuous wireway extending about the top top inner periphery of said luminaire, said continuous wireway thereby communicating with wire entrances pro-

vided at any selected point about the perimeter of said housing.

5. A luminaire for use with elongated electric discharge lamps comprising in combination, an elongated housing having end walls and side walls and a top wall, opposed lampholders mounted respectively adjacent the end walls of said housing, a detachable door frame pivotally mounted adjacent the bottom opening of said housing, a latch having a keeper projecting upwardly through a slot adjacent a lateral edge of said door frame to secure said door frame in a closed position with said housing, said keeper engaging a complementarily formed portion of the adjacent one of said side walls, a slide plate attached to said keeper to actuate said latch, said slide plate being located on the outer surface of said door frame and completely covering said slot in the engaged position of said keeper, said keeper having an indentation with a knee portion adjacent thereto, said knee portion pivotally engaging said closure adjacent one end of said opening on the side of said door frame opposite said slide plate, and spring means for simultaneously urging said latch to its closed position and urging said slide plate flush against said door frame to provide a light-tight latch.

6. A luminaire for use with elongated lamps comprising a housing having a bottom opening, a closure member comprising a door frame hingedly attached to said housing to cover said bottom opening, a latch extending through a slot in the door frame, said latch having a keeper with at least two spaced offset indentations on opposite sides thereof, one of said indentations engaging a complementarily formed portion of said housing to secure said door frame in a closed position with said housing, said latch having a slide to actuate said keeper, said slide juxtaposed with the bottom surface of said door frame and completely covering the slot in the door frame at least in said closed position to thereby provide a light-tight latching mechanism, a projection on said door frame adjacent one end of said slot, said keeper having a knee portion pivotally engaging said door frame adjacent the other end of said slot, a generally U-shaped actuating spring biased at one end thereof against said projection and reversedly bent at the other end thereof to form a hook engaging the keeper under the other of said indentations so as to put the spring under stress, said spring thus serving simultaneously to bias the latch upwardly to cause engagement of the slide with the door frame and to bias the latch to the other end of said opening to prevent accidental release of said latch from said housing, said projection also acting as a stop to restrict movement of the latch too far toward the other end of said slot.

7. A luminaire for use with elongated lamps, said luminaire comprising a housing of an elongated hollow construction having end walls, side walls and a top wall, a pair of generally opposed stepped side supporting members pivotally attached to the lower ends of said side walls and substantially coextending therewith, said side supporting members having a stepped configuration with horizontal outwardly extending flanges engaging opposed external supporting members, said side supporting members forming the lower portion of said side walls and defining a light opening, at least partially light transmitting means for said light opening engaging said side supporting members and being secured thereto.

8. A latch mechanism for a receptacle and closure therefor, said mechanism comprising a keeper extending freely through an opening in said closure disposed adjacent the end thereof, a slide member juxtaposed with the outer surface of said closure and secured to said keeper for limiting inward movement of said keeper and for actuating the latter to and from its engaged position, said keeper having a catch portion engaging a complementarily formed portion of said receptacle disposed adjacent said opening to secure said closure in its closed position in said receptacle, said keeper having an indentation with a

knee portion adjacent thereto, said knee portion pivotally engaging said closure adjacent one end of said opening, resilient means biasing said keeper in an inward direction toward said one end of said opening, said slide member completely covering said opening in said closure at least at the engaged position of said keeper to provide a light tight latching mechanism.

References Cited in the file of this patent

UNITED STATES PATENTS

2,305,015	Langer	Dec. 15, 1942
2,321,099	Naysmith	June 8, 1943

2,327,552
2,336,414
2,440,186
2,440,603
2,523,840
2,587,920
2,596,634
2,684,498
2,744,716
2,846,569
2,867,719
2,932,728

Poehling	Aug. 24, 1943
Mitchell	Dec. 7, 1943
Runge	Apr. 20, 1948
Guth	Aug. 27, 1948
Nitardy	Sept. 26, 1950
Stubbs	Mar. 4, 1952
Wince	May 13, 1952
Zingone	July 27, 1954
Zingone	May 8, 1956
Frizzell et al.	Aug. 5, 1958
Stephensen et al.	Jan. 6, 1959
Thomas	Apr. 12, 1960