

Aug. 31, 1965

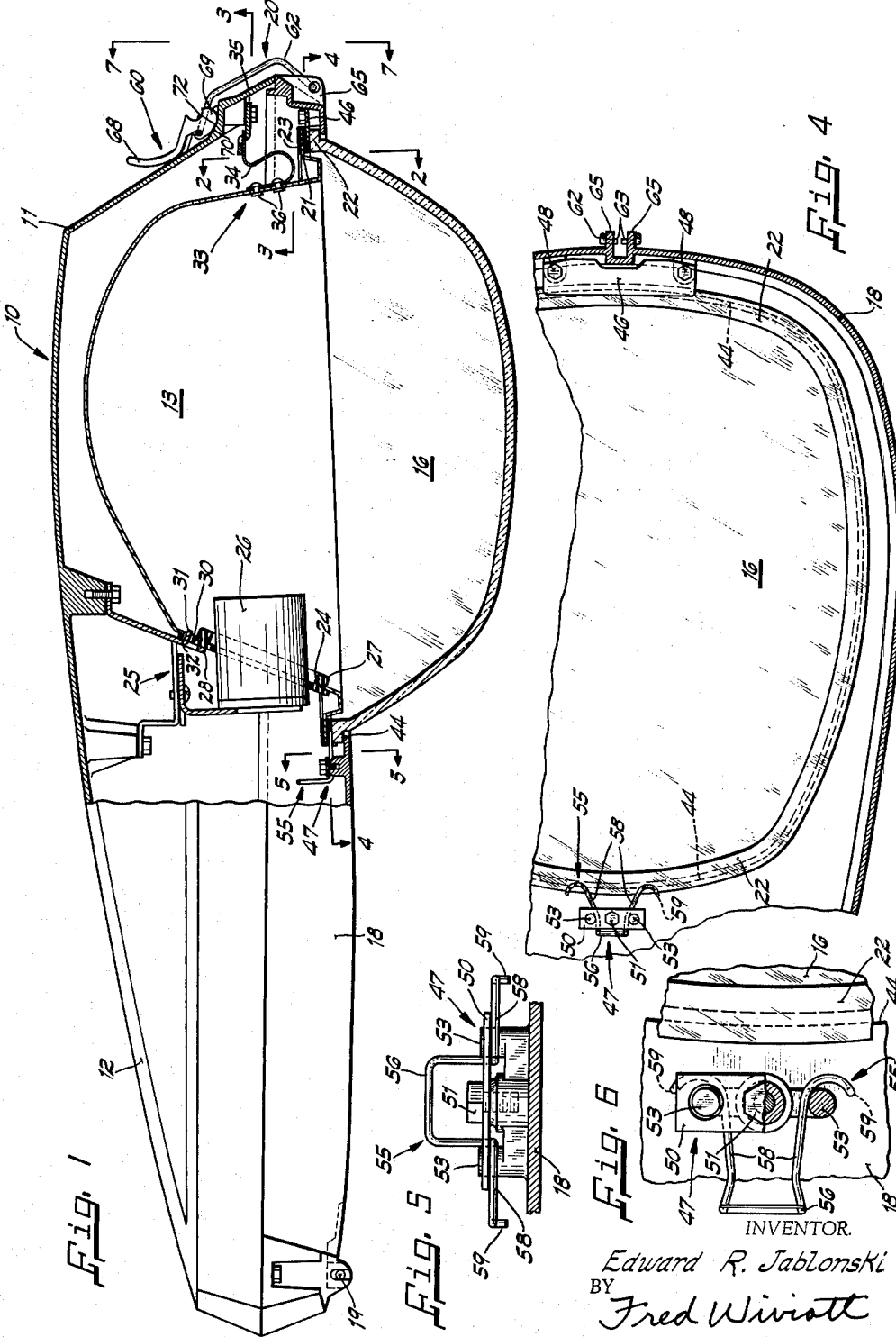
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3,204,092

STREET LIGHTING LUMINAIRE

Filed Jan. 28, 1963

2 Sheets-Sheet 1



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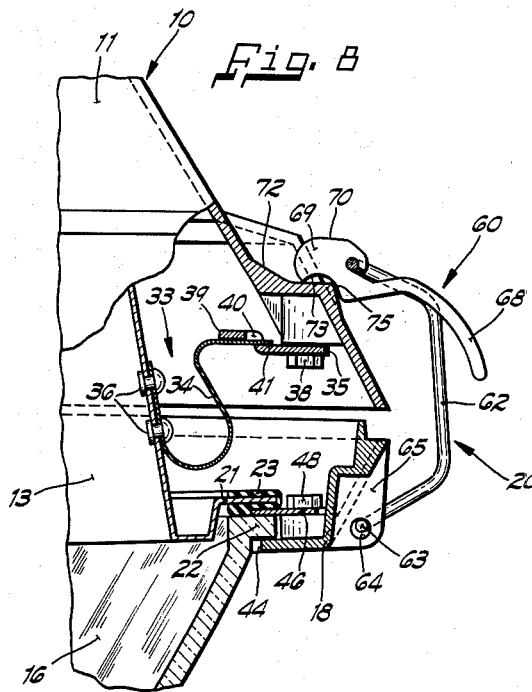
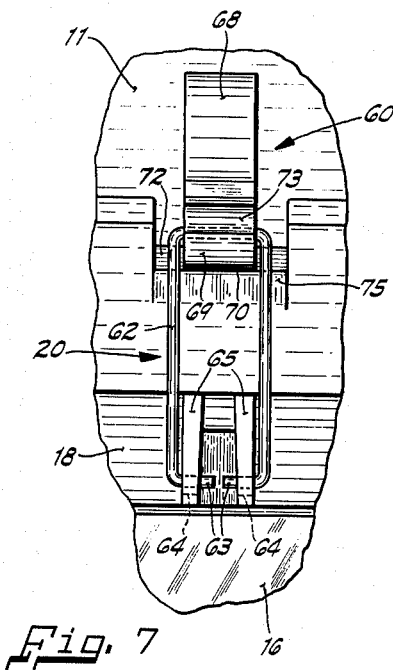
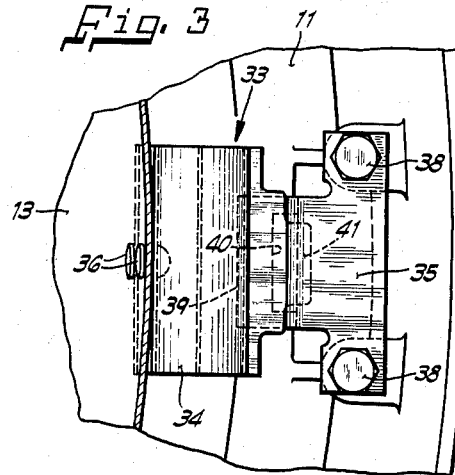
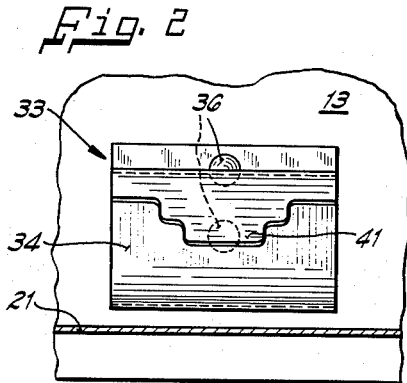
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2 Sheets-Sheet 2



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1

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STREET LIGHTING LUMINAIRE

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Filed Jan. 28, 1963, Ser. No. 254,071

11 Claims. (Cl. 240—25)

This invention relates to luminaires and more particularly to certain structural features of a horizontal mercury type luminaire having particular application for street lighting.

Prior art horizontal mercury luminaires generally include an inverted dished ovate housing, an inverted dished ovate reflector disposed beneath the housing and a dished refractor carried by a bottom housing closure member and pivotally mounted for movement into and out of sealing engagement with the lower periphery of either the refractor or the housing.

Such horizontal mercury luminaires are generally mounted on a vertical support pole so that complicated and expensive servicing techniques and equipment is required. As a result, even a relatively small time savings in the servicing of each luminaire can result in a substantial cost saving when a large number of such luminaires are being serviced. Accordingly, such luminaires are provided with a quick release latch for releasing the bottom closure member for pivotal movement away from the housing, and quick release fastening means provided for holding the refractor in the bottom closure member and for holding the reflector within the housing.

It is an object of the invention to provide new and improved quick release devices for the reflector and refractor of a horizontal mercury luminaire.

Another object of the invention is to provide a quick release latch for holding the bottom closure member of a horizontal mercury luminaire wherein positive spring pressure is applied when the latch is in its closed position.

A further object of the invention is to provide a quick release spring latch for holding the reflector of horizontal mercury luminaires within its housing and which applies positive spring pressure to maintain the seal of the peripheries of the reflector and its cooperating refractor.

Yet another object of the instant invention is to provide quick release member for holding the refractor of a horizontal mercury luminaire within a pivotal housing bottom closure member and which require no tools for release and wherein their removal from the luminaire is not required.

It is another object of the invention to provide a luminaire having resilient spring latch means for supporting a reflector in spaced relation from the housing and for biasing the same outwardly of its operative position to correct for misalignment with its cooperating refractor.

These and other objects and advantages of the instant invention will become more apparent from the detailed description thereof taken with the accompanying drawings, in which:

FIG. 1 is a side elevational view with parts broken away showing a luminaire incorporating the instant invention;

FIG. 2 is a view taken along lines 2—2 of FIG. 1;

FIG. 3 is a view taken along lines 3—3 of FIG. 1;

FIG. 4 is a view taken along lines 4—4 of FIG. 1;

FIG. 5 is a view taken along lines 5—5 of FIG. 1;

FIG. 6 is a view of a portion of the refractor quick release means in its unlatched position;

FIG. 7 is a view taken along lines 6—6 of FIG. 1; and

FIG. 8 shows the quick release latch according to the instant invention in its unlatched position.

2

Referring now to the drawings in greater detail, FIG. 1 shows a horizontal mercury luminaire 10 which includes a generally inverted ovate housing 11 having an elongate portion 12 integrally formed on one side thereof for enclosing a slipfitter assembly (not shown) which permits attachment of the luminaire 10 to a horizontally extending pipe support member (not shown).

An ovate reflector 13 is mounted within the housing 11 for reflecting light rays in a generally downward direction as viewed in FIG. 1 whereupon they are further modified by a cooperating refractor 16. The refractor 16 is mounted on a bottom closure member 18 which is supported at one end beneath the slipfitter housing 12 by a hinge assembly 19 to permit pivotal movement in a clockwise direction as viewed in FIG. 1 so that the underside of the housing may be exposed for relamping, the removal of the reflector 13 from the housing 11, the removal of the refractor 16 from the bottom closure member 18 and other maintenance purposes. A quick release latch assembly 20 is provided at the opposite side of the closure member 18 so that the latter may be affixed in its closed position shown in FIG. 1 whereby a peripheral flange 22 on the refractor 16 is held in cooperating sealed engagement with a gasket 23 carried by a peripheral flange 21 on the reflector 13.

As seen in FIG. 1, the end of the reflector 13 opposite the latch 20 is provided with an aperture 24 for receiving therethrough a light socket 26 which supports a lamp (not shown) within the optical assembly consisting of the reflector 13 and the refractor 16. The light socket 26 is suitably supported within the housing 11 by a bracket assembly 25 and is connected to a source of energy (not shown) in a manner well known in the art. A suitable gasket 27 of flexible material such as rubber is affixed to the reflector 13 around the aperture 24 and cooperatively engages the surface of the light socket 26 to seal the aperture 24. The gasket 27 is sufficiently flexible to allow a substantial amount of relative movement between the reflector 13 and the lamp socket 26 while maintaining the seal therebetween. In order to help position the reflector 13 within the housing 11 an arm 28 depends from the bracket assembly 25 for abutment by the gasket 27. In addition, a small indexing slot 30 is formed in the reflector 13 above the aperture 24 for receiving a tongue 31 extending from the arm 28 and through a slot 32 in the gasket 27.

From the foregoing it will be appreciated that one end of the reflector 13 is supported by the light socket 26. The other end of the reflector 13 is resiliently supported by a quick release latch assembly 33 consisting of a latch spring 34 and a catch plate 35.

As seen in FIGS. 1 and 2, the latch spring 34 is shown to have a generally S-shaped configuration with one end attached to the reflector 13 by rivets 36 and at a point substantially opposite the aperture 24. With reference to FIGS. 1 and 3 the catch plate 35 is mounted within the housing 11 and adjacent the latch 20 in any suitable manner, such as by screws 38, and has a rearwardly extending ear 39 which is stepped upwardly therefrom. The catch plate 35 also has a slot 40 formed at the edge of the ear 39.

The free end of the spring 34 is provided with notches at either side to form a latch tip 41 for cooperatively engaging the slot 40 in the catch plate 35. The tendency of the free end of the spring 34 is to curl downwardly as shown in FIG. 2 so that when it is in the slot 40 it is slightly deformed by the ear 39 whereby the adjacent end of the reflector 13 is biased toward slight outward movement relative to the housing 11.

It can be seen that the lamp socket 26 and the latch assembly support the reflector 13 in spaced relation from the housing 11. As a result, when the closure member

18 is brought into its closed position, the peripheral flange 21 on the reflector 13 and the coacting refractor flange 22 will engage and the reflector will be moved slightly inwardly of the housing to its operative position shown in FIG. 1 and against the biasing force of the latch spring 34. This movement automatically corrects any misalignment between the reflector 13 and the refractor 16.

In addition, this outward biasing force of the spring 34 acts to hold the peripheral flanges 21 and 22 of the reflector 13 and the refractor 16 in tight sealing engagement and to compress the gasket 23 disposed therebetween. Thus, the spring 34 not only acts as a quick release for the reflector 13 but also acts to provide sealing contact pressure between the reflector 13 and the refractor 16 and allows the correction of misalignment therebetween.

When the bottom closure 18 is open and it is desired to remove the reflector 13 from the housing 11 the free end of the spring 24 is moved rearwardly and out of the slot 40. The aperture 24 of the reflector is then slid forwardly on the light socket 26 for a short distance until the slot 31 is moved away from the tongue 30. Continued forward movement of the reflector 13 disengages the gasket 27 and the aperture 24 from the socket 26 thereby freeing the reflector 13 from the housing 11.

As seen in FIGS. 1, 4, 5, and 6, the upper peripheral edge 22 of the refractor 16 engages a correspondingly shaped aperture 44 in the bottom closure member 18. The refractor 16 is held in the aperture 44 by a bar clip 46 and a quick release latch assembly 47. The bar clip 46 has an elongate flat configuration and is secured to the inner surface of the closure member 18 adjacent the latch 20 by means of screws 48 with one of its lateral edges overlaying a small portion of the refractor flange 22. The quick release latch assembly 47 is disposed at the opposite side of the refractor 16 and includes a flat bar 50 affixed to the closure 18 adjacent the aperture 44 by means of a screw 51. As seen particularly in FIG. 5, the bar 50 is maintained in an elevated position by lugs 53 projecting integrally from the closure member 18. An elongate wire lock spring 55 is disposed beneath the plate 50 and generally between the lugs 53. More specifically, the spring 55 has an inverted U-shaped finger engaging portion 56 which extends generally upwardly adjacent the rear edge of the plate 50 and is in substantial engagement therewith when the spring member 55 is in a locking position relative to the refractor 16. As seen in FIG. 4, the lock spring 55 has a pair of legs 58 which extend forwardly from the lower ends of the finger engaging portion 56 to a point adjacent the lugs 53 whereupon each of the legs flare outwardly and then rearwardly in a generally J-shaped portion which embracingly engages the flange 22 of the refractor 16. Each of the legs 58 terminates in a downwardly projecting tip, as seen in FIG. 1, which engages the outer rim of the flange 22.

When the lock spring 55 is in its position shown in FIG. 4, the refractor 16 will be held in the aperture 44 by the legs 58 as well as the bar 46 disposed in the opposite end of the aperture 44. The legs 58 of the lock spring 55 bear slightly outwardly against the lugs 53 and this along with the outwardly flared portion thereof tends to prevent accidental movement of the latch spring out of its refractor engaging position.

In order to remove the refractor after the bottom closure member 18 has been opened the spring 55 is moved rearwardly as viewed in FIGS. 1 and 2 by engaging the portion 56. This moves the spring 55 to its position shown in FIG. 6 wherein the ends of the legs are out of engagement with the refractor flange 22 and wherein their outwardly projecting portions are forced inwardly by the lugs 53. The tendency of the legs 58 to move outwardly and to assume their normal position forces the legs 58 into frictional engagement with the lugs 53 thereby tend-

ing to hold the spring 55 in its position shown in FIG. 6. By merely tilting the rear end of the refractor 21 away from the adjacent portion of the bottom closure member 18 the opposite end of the refractor may then be removed from beneath the plate 46.

Thus, without the use of tools, and by means of a simple operation the refractor 16 may be readily removed from the bottom closure member 18. It will be apparent too that the refractor 16 may be re-inserted with relative ease by a reversal of the above-described procedure.

Referring now to FIGS. 1, 7 and 8 the front closure latch can be seen to include a latch member 60 and a latch spring 62. The latch spring 62 comprises an elongate loop having an appended generally lazy-U sidewise configuration with its lower end sloping downwardly and away from the central portion to terminate a pair of inwardly directed end portions 63 which are loosely received for pivotal movement in apertures 64 formed in a pair of adjacent lug portions 64 integral with the free end of the bottom closure member 18. The other end of the spring 62 slopes upwardly and away from the central portion for engagement by the latch member 60.

The latch member 60 includes a handle portion 68 and a cam portion 69. The cam portion 69 has a cam surface 70 formed along one side thereof for cooperative engagement with an oppositely formed surface 72 on the housing 11 when the latch is in its closed position shown in FIG. 1. In addition, a convex catch surface 73 is formed on the other side of the cam portion 69 for cooperative engagement with an elevated catch 75 formed on the housing 11 and outwardly of the surface 70.

When the bottom closure member 18 is to be latched it is pivoted counterclockwise as viewed in FIG. 1 until it is in a substantially closed position. The latch spring 62 is then pivoted counterclockwise as viewed in FIG. 7 until the catch surface 73 on the opposite side of the cam member 69 is brought into engagement with the catch 75 on the housing 11. This engagement holds the closure member 18 in the position shown in FIG. 8 and prevents rotation thereof away from the housing 11. Latch member 60 is then rotated counterclockwise so that the cam surface 70 is made to roll along the surface 72 on the housing 11 causing flexure of the spring 62 so that the bottom closure member 18 is biased toward a closed position and the refractor flange 22 is brought into a compressive sealing engagement with the refractor flange 21. In addition, this moves the reflector 13 upward slightly against the latch spring 34 so that this spring will also urge sealing engagement between the flanges 21 and 22 of the reflector 13 and the refractor 16 respectively.

It can be seen that as the surface 70 begins moving off the catch 75 and onto the surface 72 of the housing 11, the latch member 60 will move into and over center position relative to the spring 62 and it will then snap into its latched position shown in FIG. 1. This overcenter action also serves to prevent movement of the cam portion 68 up the catch 75 so that the latch member 60 is resiliently held in its latched position shown in FIG. 1.

It can thus be seen that the latch mechanism 20 not only serves to hold the bottom closure member in closed position relative to the housing 11 but it also provides positive spring pressure for this purpose. In addition, the latch spring 62 in cooperation with the latch spring 34 tends to maintain a positive sealing pressure between the refractor 16 and the reflector 13 when the assembly is in its latched position.

It can also be seen with respect to FIG. 8 that the spring 34 holds the reflector 13 sufficiently outwardly of the housing 11 so that when the bottom closure member 18 is moved to its position in FIG. 8 the refractor flange 22 will just engage the reflector flange 21. Further, movement of the closure member to its fully closed position will flex spring 34 so that it will exert sealing pressure between the flanges 21 and 22.

5

While only a single embodiment of the invention has been disclosed and while the invention has been illustrated with respect to a particular luminaire, it will be appreciated by those skilled in the art that the invention may take other forms and be applicable to other types of luminaires as well. Accordingly, it is intended that the invention only be limited by the scope of the appended claims.

I claim:

1. A luminaire comprising an inverted dished housing having a bottom opening, lamp holding means mounted in said housing for supporting a light source, an inverted dished reflector having a bottom opening, an aperture in one end of said reflector and slidably engaging said lamp holding means, resilient spring latch means for releasably supporting the other end of said reflector in said housing, said resilient spring latch means and said lamp holding means supporting said reflector in spaced relation from said housing, said spring latch means also resiliently biasing said reflector toward limited movement outwardly of said housing, a peripheral flange around said bottom opening of said reflector, a closure assembly hingedly mounted on said housing, releasable latch means for securing said closure member to said housing in a closed position, and a refractor having a peripheral flange mounted in said closure assembly with said refractor flange engaging said reflector flange when said closure assembly is in its closed position, said engagement moving said reflector inwardly of said housing and against the biasing force of said spring latch means so that said flanges are urged into sealing engagement and misalignment between said refractor and said reflector is corrected.

2. A luminaire comprising an inverted dished housing having a bottom opening, lamp holding means mounted in said housing for supporting a light source, an inverted dished reflector having a bottom opening, an aperture in one end of said reflector and slidably engaging said lamp holding means, a catch mounted on one of said housing and said reflector opposite said lamp holding means, resilient spring latch means secured to the other of said housing and said reflector and engageable with said catch, said spring latch supporting said reflector in spaced relation from said housing and biasing said reflector outwardly of said housing, a peripheral flange around said bottom opening of said reflector, a closure assembly hingedly mounted on said housing, a releasable latch means for securing said closure member to said housing in a closed position, and a refractor having a peripheral flange mounted in said closure assembly with said refractor flange engaging said reflector flange when said closure assembly is in its closed position, said engagement moving said reflector inwardly of said housing and against the biasing force of said latch spring so that said flanges are urged into sealing engagement.

3. A luminaire comprising an inverted dished housing having a bottom opening, lamp holding means mounted in said housing for supporting a light source, an inverted dished reflector having a bottom opening and being mounted substantially within said housing, a peripheral flange around said bottom opening of said reflector, an aperture in one end of said reflector and slidably engaging said lamp holding means, quick release latch means opposite said lamp holding means and including a catch mounted on one of said housing and said reflector and an elongate resilient spring latch secured to the other of said housing and said reflector and having an upwardly extending portion terminating in a latch tip for engaging said catch, the engagement between said latch tip and said catch causing deformation of said spring to bias said reflector for limited movement outwardly of said housing, said latch means and said lamp holding means supporting said reflector in spaced relation from said housing, a closure assembly hingedly mounted to said housing, a releasable latch means for securing said closure assembly to said housing in a closed position, and a refractor having

6

a peripheral flange mounted in said closure assembly with said refractor flange engaging said reflector flange when said closure assembly is in its closed position, said engagement moving said reflector inwardly of said housing and against the biasing force of said latch spring so that said flanges are urged into sealing engagement and misalignment between said reflector and said refractor is corrected.

4. A luminaire comprising an inverted dished housing with a bottom opening, lamp holding means mounted in said housing for supporting a light source, an inverted dished reflector having a bottom opening, an aperture in said reflector, said lamp holding means being slidably receivable within said aperture to support one side of said reflector, resilient spring latch means for releasably securing the other end of said reflector within said housing and in spaced relation therefrom and for biasing said reflector for limited movement outwardly of said housing, a gasketed peripheral flange around said bottom opening of said reflector, a closure assembly hingedly mounted to said housing, a refractor having a peripheral flange mounted in said closure assembly, releasable latch means for securing said closure assembly to said housing in a closed position with said refractor flange engaging said gasketed reflector flange, said releasable latch means including holding spring means for resiliently urging said closure assembly toward its closed position in opposition to the biasing force of said resilient spring latch means so that said reflector flange and said refractor flange are biased into sealing engagement by said spring latch means and holding spring means.

5. A luminaire comprising an inverted dished housing having a bottom opening, an inverted dished reflector having a bottom opening and being mounted at least partially within said housing, an aperture in said reflector, lamp holding means extending through said aperture for supporting a light source and for supporting one end of said reflector, a catch secured to one of said housings and said reflector generally opposite said lamp holding means, resilient means on the other of said housing and said reflector and resiliently engaging said catch to support said reflector in spaced relation from said housing and to bias said reflector toward limited movement outwardly of the bottom opening of said housing, a peripheral flange around said bottom opening of said reflector, a closure assembly hingedly mounted to said housing, a refractor having a peripheral flange mounted in said closure assembly, releasable latch means for securing said closure assembly to said housing in a closed position, with said reflector flange engaging said refractor flange, releasable latch means including urging spring means for resiliently holding said closure assembly toward a closed position and for holding said reflector inwardly of said housing in opposition to the biasing force of said resilient means so that said reflector flange and said refractor flange are biased into sealing engagement by said resilient means and said holding spring means.

6. A luminaire comprising an inverted dished housing having a bottom opening, an inverted dished reflector having a bottom opening and being mounted at least partially within said housing, an aperture in said reflector, lamp holding means extending through said aperture for supporting a light source and for supporting one end of said reflector, elongate resilient latch spring means secured to said reflector generally opposite said lamp holding means and having a shaped latch tip, catch means on said housing and having latch receiving means shaped differently than said latch tip, engagement between said latch tip and said catch supporting said reflector in spaced relation from said housing, said engagement also biasing said reflector toward limited movement outwardly of the bottom opening of said housing, a gasketed peripheral flange around the bottom opening of said reflector, a closure assembly hingedly mounted

to said housing, a refractor having a peripheral flange mounted in said closure assembly, releasable latch means for securing said closure assembly to said housing in a closed position with said gasketed reflector flange engaging said refractor flange, said releasable latch means including holding spring means for resiliently urging said closure assembly toward closed position and for holding said reflector inwardly of said housing in opposition to the biasing force of said latch spring means so that said reflector flange and said refractor flange are biased into sealing engagement by said latch spring means and said holding spring means.

7. A luminaire comprising an inverted dished housing having a bottom opening, lamp holding means mounted in said housing for supporting a light source, an inverted dished reflector having a bottom opening, an aperture in one end of said reflector and slidably engaging said lamp holding means, a catch mounted on one of said housing and said reflector opposite said lamp holding means, resilient spring latch means secured to the other of said housing and said reflector and opposite said aperture and resiliently engaging said catch to support the other end of said reflector in spaced relation from said housing and to bias the same toward limited movement outwardly of said housing, a gasketed peripheral flange around the bottom opening of said reflector, a closure assembly hingedly mounted to said housing, a releasable latch means for securing said closure assembly to said housing in a closed position, said latch means including elongate spring means pivotally connected to one of said housing and said closure assembly, a latch member pivotally mounted to the free end of said elongate spring means, a cam surface formed on said latch member, a catch formed on the other of said housing and closure assembly for cooperating with said cam surface, rotation of said cam surface over said catch being operative to bring said bottom closure assembly into a closed position relative to said housing and to flex said elongate spring means so that said bottom closure assembly is biased toward closed position relative to said housing, the refractor having a peripheral flange mounted in said closure assembly, said refractor flange engaging said gasketed reflector flange when the closure assembly is in a closed position.

8. A luminaire comprising an inverted dished housing having a bottom opening, an inverted dished reflector having a bottom opening and being mounted at least partially within said housing, an aperture in said reflector, lamp holding means extending through the aperture in said reflector for supporting one end thereof, a catch secured to said housing generally opposite said lamp holding means and having latch receiving means, resilient latch spring means comprising an elongate spring member attached at one end to said reflector opposite said aperture, the free end of said latch spring means having a latch tip for engaging said latch receiving means to support the other end of said reflector in spaced relation from said housing and to exert an outwardly directed biasing force thereon, a gasketed peripheral flange around the bottom opening of said reflector, a closure assembly hingedly mounted on said housing, releasable latch means for securing said closure assembly to said housing in a closed position, said latch means including spring means pivotally connected to one of said housing and said closure assembly, a latch member pivotally mounted to the free end of said spring means, the other of said housing and said closure assembly having a catch formed thereon, a catch surface formed on said latch member for cooperatively engaging said catch to prevent movement of said bottom closure assembly away from said housing, a first cam surface formed on said latch member adjacent said catch surface, a second cam surface formed on the other of said housing and closure members adjacent said catch, rotation of said first cam surface onto said second cam surface after the engage-

ment of said catch surface on said catch being operative to bring said bottom closure assembly into a closed position relative to said housing and to flex said elongate spring means, the refractor having a peripheral flange mounted in said closure assembly with said flange engaging said gasketed reflector flange when the closure assembly is in a closed position to move said reflector inwardly of said housing against the biasing force of said latch spring means so that said reflector flange is biased toward engagement with said refractor flange.

9. In a luminaire including a housing having a bottom opening an inverted dished reflector having a bottom opening and being releasably mounted in said housing, refractor supporting means hingedly mounted to said housing and having a refractor receiving aperture, releasable latch means for securing said refractor supporting means in a closed position relative to said housing, a refractor having a peripheral flange one side of which engages the aperture in said supporting means, said refractor flange being disposed adjacent the bottom opening of said reflector when said support means is in its closed position, a first holding means mounted on said bottom closure assembly and engaging a portion of the other side of said refractor flange, a second holding means disposed in said bottom closure assembly on the opposite side of said aperture relative to said first holding means and including an elongate shaped spring member, said spring member having a pair of divergent portions engaging the opposite side of said refractor flange, lug means mounted on said closure assembly and adjacent said spring member, said spring member being movable laterally away from said refractor to move said divergent portions out of engagement with said refractor flange and into resilient engagement with said lug means so that said spring member is held in its disengaged position.

10. In a luminaire including a housing having a bottom opening, an inverted dished reflector having a bottom opening and being releasably mounted in said housing, refractor supporting means hingedly mounted to said housing and having a refractor receiving aperture, releasable latch means for securing said refractor supporting means in a closed position relative to said housing, a refractor having a peripheral flange one side of which engages the aperture in said supporting means, said refractor flange sealingly engaging said reflector flange when said supporting means is in its closed position, a first holding means mounted on said refractor supporting means and engaging a portion of the other side of said refractor flange, a second holding means disposed on said refractor supporting means on the opposite side of said aperture relative to said first holding means and including an elongate spring member, said spring member having a central portion and a pair of divergent portions engaging the opposite side of said refractor flange, lug means mounted on said closure assembly and adjacent the central portion of said spring member when the divergent portions thereof are in engagement with said refractor flange, said spring member being movable away from said refractor to move said divergent portions out of engagement with said refractor flange and into resilient engagement with said lug means, so that said spring member is resiliently held in its disengaged position.

11. A luminaire comprising an inverted dished housing having a bottom opening, lamp holding means mounted in said housing for supporting a light source, an inverted dished reflector having a bottom opening, an aperture in one end of said reflector and slidably engaging said lamp holding means, a catch secured to one of said housings and said reflector generally opposite said lamp holding means, resilient means on the other of said housing and said reflector to support said reflector and bias the same outwardly of said housing, a gasketed peripheral flange around the bottom opening of said reflector, a closure assembly hingedly mounted to said housing, a releasable latch means for securing said closure assembly to said

housing in a closed position, said closure assembly having an aperture formed therein, a refractor having a peripheral flange one side of which supportingly engages the aperture in said closure assembly, said refractor flange engaging said gasketed reflector flange when said closure assembly is in its closed position to move said reflector inwardly of said housing in opposition to said resilient means so that said flanges are biased toward sealing engagement, a first holding means mounted on said closure assembly and engaging a portion of the other side of said refractor flange, a second holding means disposed in said bottom closure assembly on the opposite side of said aperture relative to said first holding means and including an elongate spring member, said spring member having a central portion and a pair of outwardly directed portions which engage the opposite side of said refractor flange, lug means mounted on said closure assembly and adjacent the sides of the central portion of said spring member

when said outwardly directed portions are in engagement with said refractor flange, said spring member being movable away from said refractor to move said outwardly directed portions out of engagement with said refractor flange and into resilient engagement with said lug means, so that said spring member is held in its disengaged position.

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