

June 4, 1963

D. W. HARLING ET AL
FLUORESCENT LUMINAIRE

3,092,336

Filed Sept. 23, 1957

4 Sheets-Sheet 2

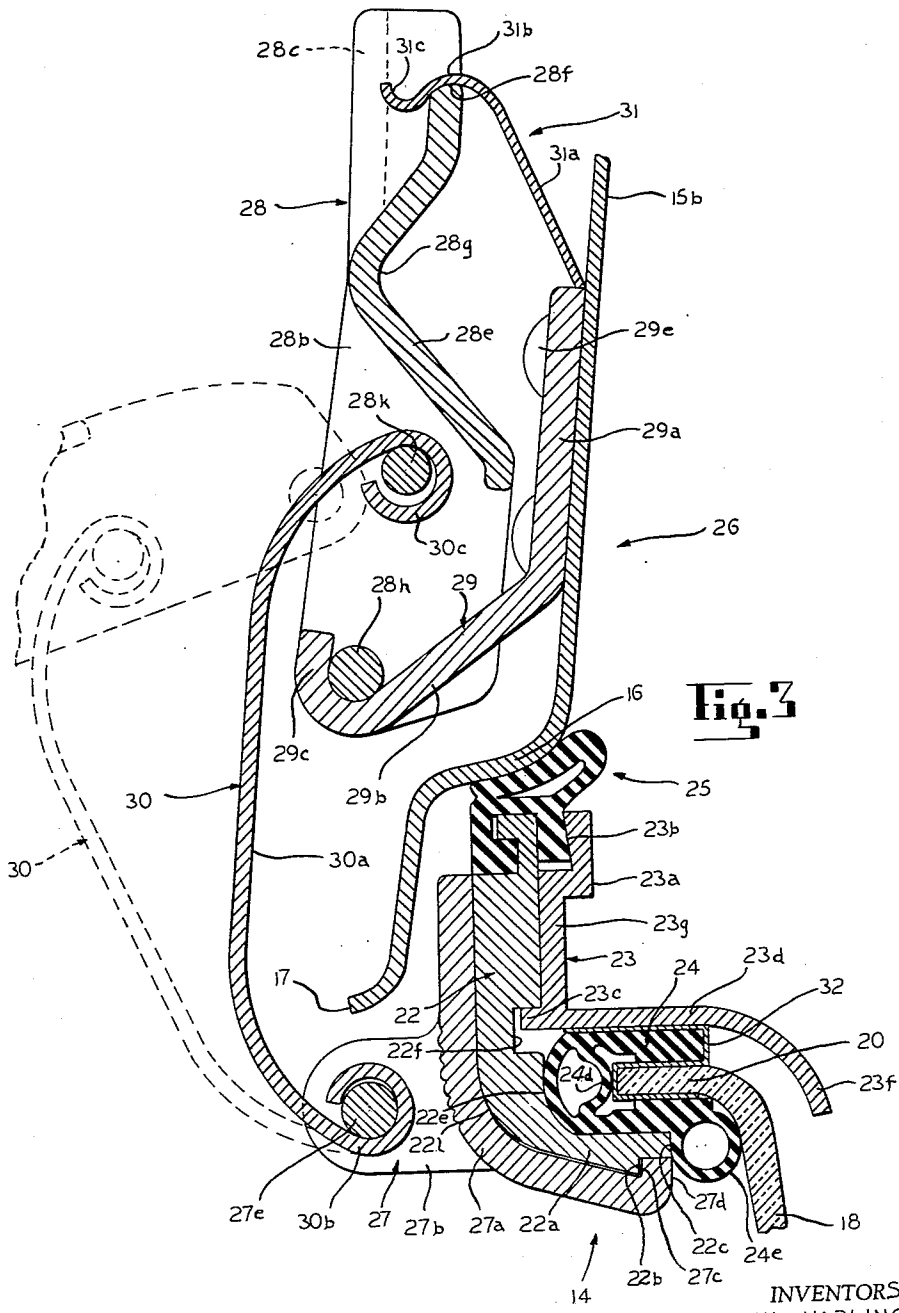


Fig. 3

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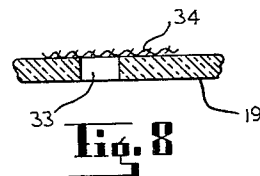
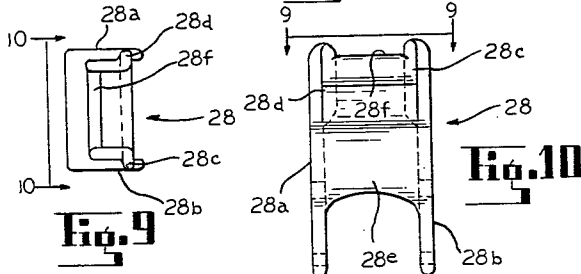
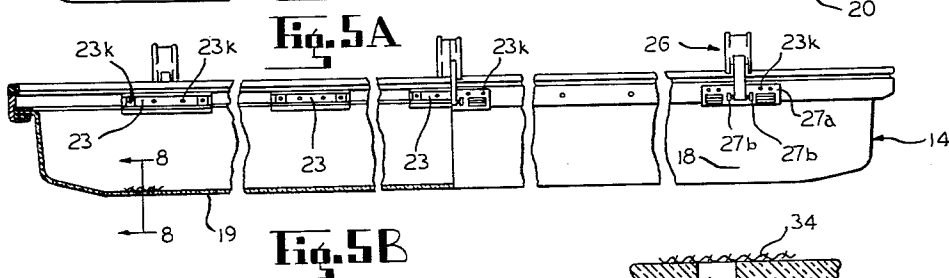
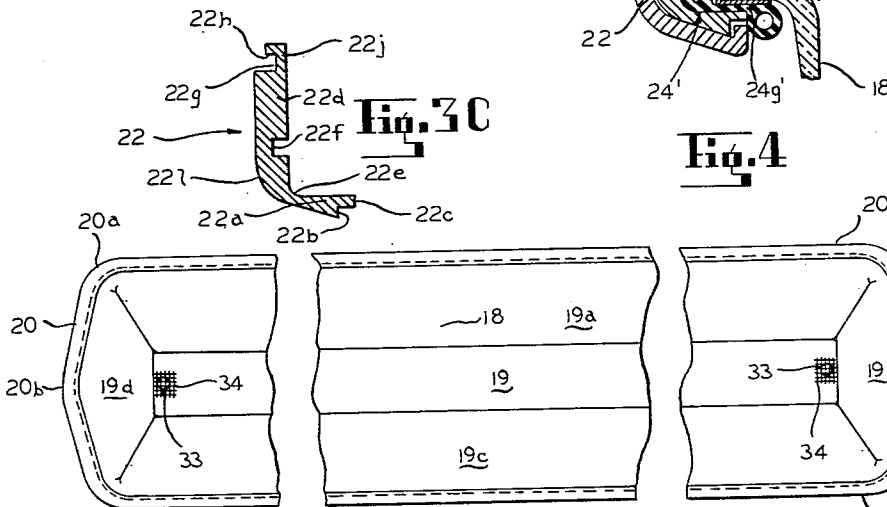
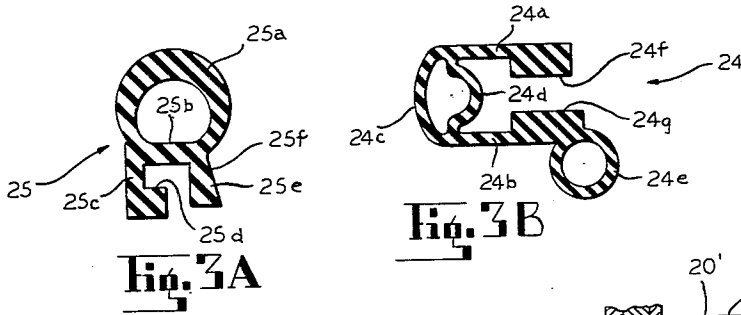
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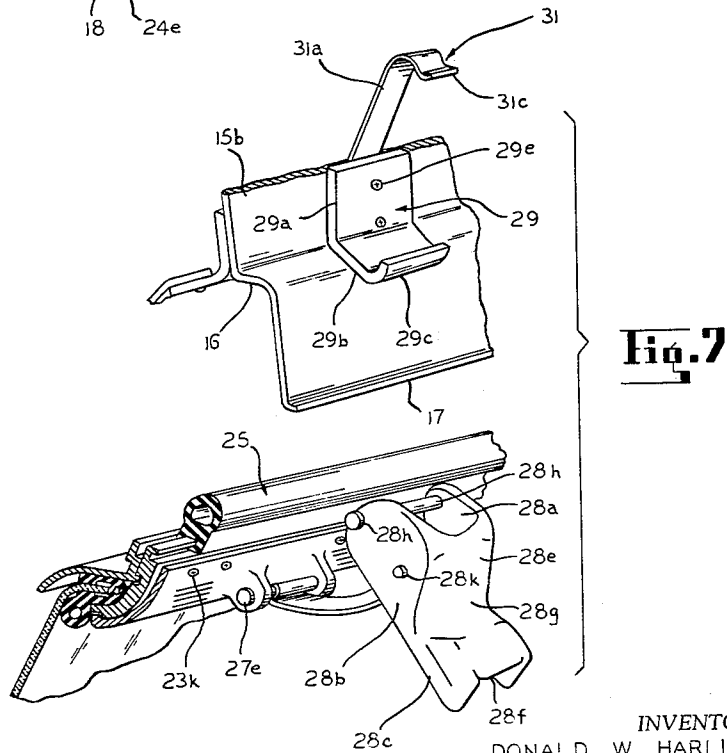
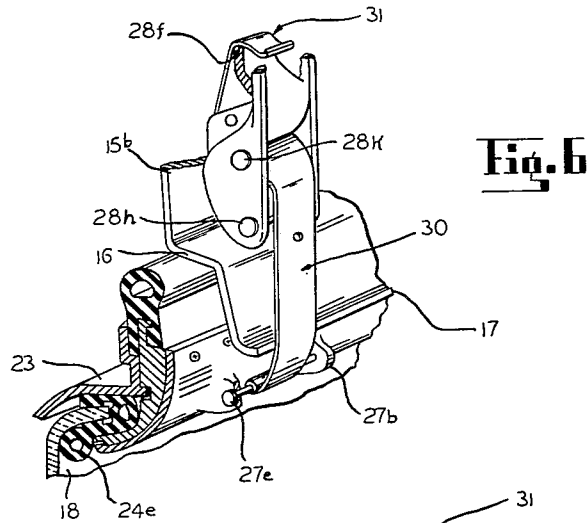
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FLUORESCENT LUMINAIRE

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Filed Sept. 23, 1957, Ser. No. 685,438
8 Claims. (Cl. 240—25)

This invention relates to latching and sealing means for luminaires and more particularly to latching and sealing means for fluorescent luminaires adapted for street lighting and the like.

Street lighting luminaires are ordinarily operatively mounted in elevated positions which pose severe problems in maintenance. It is, of course, generally desired that maintenance calls for street lighting are kept at an irreducible minimum, but that when maintenance is required, that the maintenance job be as easy as possible due to the fact that the maintenance men must operate from a ladder or the like.

It is an object of this invention to provide latching and sealing means for a street lighting luminaire which eliminates many maintenance calls and is particularly well adapted for easy maintenance once maintenance becomes necessary.

Another object of the invention is to provide a luminaire having relatively movable globe and housing means which have associated therewith a positive, simple, one hand manually operable combination latch and hinge which is easy to operate by a maintenance man standing on a ladder or the like and has associated therewith a positive, quick detachable, lock spring which prevents inadvertent detachment of the latch when it is acting as a hinge.

It is a further object of this invention to provide a latch assembly having a latch member formed with a finger receiving indentation surface and a lock spring receiving surface, said surfaces being so arranged that a finger may be inserted in the finger receiving indentation and simultaneously the thumb may be used to manually disengage a lock spring, all of which afford unlatching in one simple simultaneous movement.

Another object of the invention is to provide a street lighting luminaire of the type aforementioned wherein sealing means is circumferentially surrounding mounted relative to a one-piece, hollowed out, plastic globe member in a manner to afford substantially unrestrained temperature caused expansion and contraction of said globe, said nonrestraining seal preventing cracking of the globe member while simultaneously maintaining a good positive seal which keeps out moisture, dirt, bugs, etc.

A further object of the invention is to provide a luminaire of the type aforestated wherein a first sealing means is adapted to be interposed between the globe supporting means and the housing, and a second sealing means is adapted to be interposed between the supporting means and the globe itself, both of said sealing means being mechanically mounted in place in contradistinction to attachment by adhesive, said mechanical mounting being particularly adapted for ease of removal and replacement of either of the sealing means in the field.

A further object of the invention is to provide a housing and globe assembly wherein the housing circumferentially overhangs the globe assembly and the sealing means therefor, the sealing means being adapted to sealingly cooperate with shoulder flange formed on the interior of the housing means and thus the housing provides an umbrella effect with an overhanging drip edge which tends to keep moisture away from the sealed joints.

A further object of the invention is to provide a lumi-

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naire wherein both the first and second sealing means of the luminaire assembly are mounted on the globe of the luminaire in contradistinction to the housing, such a cooperation being important in that the entire globe assembly may be detachably demounted from the housing for quick easy repair of the sealing means on the ground rather than operating on the luminaire while in its elevated position on the pole.

A further object of the invention is to provide a luminaire assembly of the type aforedescribed wherein a static electricity bleed strip is electrically connected to both the luminaire housing and globe member to bleed the static electricity away from the globe member thereby keeping the globe structure clean by reducing its tendency to attract and collect dust, dirt and the like.

It is a further object of this invention to provide a luminaire as aforedescribed wherein a breathing port is provided by a small aperture disposed on the bottom surface of the globe, said aperture being covered with a corrosion resistant screen or mesh which allows the globe assembly to breathe to thereby maintain a constant pressure between the inside and outside of the luminaire while preventing entry of bugs and moisture.

It is another object of this invention to provide a gated resilient sealing material for sealing a luminaire globe assembly made in a generally U-shaped configuration, said material having a web portion interconnecting the legs of the U near the base thereof and thereby particularly adapts the sealing means for a sealing operation with irregularly shaped circumferential surfaces.

It is a further object of this invention to make a second resilient sealing means for sealing a luminaire globe assembly which is generally R-shaped in configuration, one of the legs of said sealing means being formed with internally disposed shoulder means adapted to mechanically engage shoulder means of a supporting member and the other leg of said member formed with an angular surface adapted to wedgingly engage a clamping member, said sealing means being firmly mounted yet readily adapted for quick removal from said supporting and clamping members.

It is a further object of this invention to provide a globe and housing assembly sealing and latching means which is corrosion resistant, has high manufacturing tolerances, is readily produced by mass production techniques, is pleasing in appearance, and is otherwise well adapted for the purposes for which it was designed.

The novel features that are characteristic of the invention are set forth with particularity in the appended claims. The invention itself, both as to its organization and its method of operation, together with additional objects and advantages thereof will best be understood by the following description of specific embodiments when read in connection with the accompanying drawings in which:

FIG. 1 is a side view of a fluorescent luminaire embodying the inventive concepts, said luminaire being mounted adjacent to a pole;

FIG. 2 is a cross sectional view along lines 2—2 of FIG. 1, the dotted lines showing the position of the globe when one side is in an unlatched open position relative to the rest of the luminaire;

FIG. 3 is an enlarged fragmentary sectional view of the sealing and latching means shown in FIG. 2, the dotted lines showing an alternative position of the latch parts;

FIG. 3a is a fragmentary sectional view of one of the resilient sealing means shown in FIG. 3;

FIG. 3b is a fractional sectional view of another of the resilient sealing means shown in FIG. 3;

FIG. 3c is a fractional sectional view of the outer support member shown in FIG. 3;

FIG. 4 is an alternative embodiment of sealing means

and flange members similar in many respects to the sealing means shown in FIG. 3;

FIG. 5a is a top plan view of the globe member removed from the housing, the globe member being shown without the support means or latch means attached thereto;

FIG. 5b is a fragmentary sectional view of the globe assembly showing the relative positional relationship of the combination hinge and latch means as spaced along the sides of the globe member;

FIG. 6 is a fragmentary sectional perspective view showing the parts in assembled latch relation;

FIG. 7 is a perspective view similar to FIG. 6 showing the same parts in detached relation;

FIG. 8 is a fragmentary sectional view along lines 8—8 of FIG. 5b;

FIG. 9 is a top plan view of one of the latch members taken along lines 9—9 of FIG. 10; and,

FIG. 10 is a front view taken along lines 10—10 of FIG. 9.

Fluorescent luminaires 10 adapted for street lighting and the like are generally mounted on a pole 12 by suitable support means such as shown at 11. Since street lighting fluorescent luminaires are outside, they are exposed to severe conditions of dust, rain, snow, bugs, etc. To protect against the environment, an outer casing is surrounding disposed to the relatively delicate electric parts and a portion of that housing is, of course, designed to admit passage of light.

The particular outer casing shown in the drawings is divided into a metal upper housing means 13 and a lower transparent or translucent globe means 14. These two parts are so formed relative to each other that they form a generally elongated hollow housing to house the electric components. The particular globe means 14 shown may be detached relative to the housing for access to electrical components of the device. The particular type of combination latch and hinge means 26 for mounting the globe means 14 to the housing means 13, the configurations and cooperations of the various sealing means for the globe assembly, as well as the cooperation of the housing relative to the globe assembly, are among the essential novel concepts of the present invention. The internal structure of the luminaire, i.e., the optical relationships, method of mounting the luminaire in original installation, integral reflector, junction block and lamp assembly, the particular electrical components and method of mounting are all more particularly described in the copending application of Donald W. Harling, Serial No. 685,439, filed September 23, 1957, now Patent No. 2,886,699, and assigned to the assignee of the present invention.

Referring now to the upper housing means 13 of the luminaire, and particularly to FIGS. 1 and 2, it is seen that the upper housing means 13 is generally elongated and channel-shaped in cross section, the ends of the housing being closed so as to define a generally inverted trough. More particularly, a housing member 15 is formed with a base portion 15a and downwardly slanting side and end wall portions 15b and 15c respectively. An internal shoulder 16 is formed a short distance from and circumferentially around the lower depending edge of the housing means 15. As best shown in FIG. 3, the marginal surface of the housing member 15 is formed with an outwardly extending flange portion 17 which forms a drip edge outwardly of the sealed surfaces of the housing means 13 and globe means 14, as shall become apparent hereinafter.

Mounted below the housing means 13 is a globe assembly 14 which has the general function of admitting the passage of light while keeping out the weather, bugs and dirt. It is necessary that the globe assembly 14 be detachable relative to the housing means 13 for access to the inner components of the luminaire and to aid in easy field installation of the luminaire.

The globe assembly comprises three major components, namely, the globe member 18, the support means for the

globe member and the combination hinge and latch means which mount the entire assembly to the housing. The physical configuration of the globe means 14 is probably best shown by FIGS. 1, 5a and 5b.

Returning now to the globe member, it will be observed that the globe member 18 is generally elongated and of a size complementary to commensurate with the housing means 13. More particularly the globe member is formed with a bottom wall 19, sidewalls 19a and 19c and end walls 19b and 19d. These five walls cooperate to form a member roughly trough-like in shape which has a circumferential flange 20 that extends laterally outwardly of the globe member 18. The globe member 18 is preferably formed of a single piece of plastic such as Plexiglas or the like which shows good weathering properties, is fairly light in weight, and which does not deleteriously affect the light pattern from lamps disposed within the interior thereof. It is, however, characteristic of globes of the nature aforementioned that they are susceptible to a rather large amount of expansion and contraction due to the severe range of temperatures to which the globe member is exposed.

Inasmuch as the globe member 18 is not particularly mechanically strong, strengthening support means is disposed in surrounding relationship to the globe member, particularly at points of high mechanical stress, i.e. at points where the globe is to be latched relative to the housing. It is important to provide a support which will hold the globe member 18 in operative position but in a manner which will allow it to expand and contract in a fairly unrestrained manner to thereby prevent the cracking of the globe member. To simultaneously support the globe member in a manner to prevent cracking thereof and also to seal out moisture, bugs, dirt, etc. from the interior of the luminaire assembly, three major components are used, an outer metallic support member 22 and an inner metallic support member 23 and resilient sealing and cushioning means which affords radially inwardly and outwardly movement of the flange 20 of the globe member while maintaining a positive seal therebetween.

The outer support member 22 is generally L-shaped in configuration and extends completely around the periphery of the globe member 18. As perhaps best shown in cross-sectional view, FIG. 3c, the outer support member 22 is formed with an upper portion 22d and a lower portion 22a which is positioned at right angles thereto. The lower portion 22a is formed with a depending shoulder 22b and an end surface 22c. The inner surface at the lower end of the upper portion 22d is formed with a groove 22f. The head portion 22j of upper portion 22d may be formed with a groove 22g, so spaced from the top head of portion 22j that a shoulder surface 22h is formed for cooperation with sealing means 25 as hereinafter appearing. The inner surface 22e and outer surface 22i at the juncture of upper and lower portions 22a and 22d are generally rounded, as shown, for cooperation with the sealing means 24 and fixed latch member 27 respectively.

As perhaps best shown in FIG. 5b, the inner support members 23 may be relatively short in length and spacedly disposed around the inner periphery of the globe member 18. The inner support member may be fixedly mounted to the outer support member by suitable fastening means such as metal screws or bolts 23k. The inner support member 23 is also generally L-shaped in configuration, the lower portion 23d being adapted to extend inwardly of the globe and terminates in a depending rounded end portion 23f.

The upper portion 23g of member 23 is formed with an offset head portion 23a, the inner surface 23b of which is offset from vertical so as to form a wedge-shaped groove when the member 23 is positioned adjacent outer support member 22 as perhaps best shown in FIG. 3. At the juncture of the upper and lower portions 23g and 23d of member 23 is an outwardly extending lug portion 23c

which is adapted to cooperate with groove 22f of the outer support means 22. It is apparent that this lug portion 23c provides an interlocking relationship of the two parts in a manner to form a chamber for receipt of the sealing means 24 which is disposed adjacent surface 22e and the lower portion 23d of the inner support means.

The first sealing means 24 is generally U-shaped in configuration, the ends of which are adapted to slide over and surround flange 20 of the globe member to both cushion and seal the globe member 18 to the support means 22. As shown in FIG. 3b, the U-shaped support member 24 is formed with a base portion 24c and generally parallel extending legs 24a and 24b which terminate in enlarged inwardly extending sealing and cushioning portions 24f and 24g. Connecting the legs 24a and 24b near the base 24c is a yieldingly resilient web portion 24d. A resilient bumper 24e is integrally formed on leg 24b near the free end thereof and when the member 24 is mounted in operational position on the flange 20 the bumper 24e engages surface 22c of the outer support member and the sidewalls of globe member 18 to provide a resilient bumper which takes up the stress caused by an expanding globe member 18. The bumper also tends to seal the joint between the lower latch member 27 and the outer support member 22.

FIG. 3 shows the operational positions of the flange 20 of the globe member, the inner support member 23, the sealing means 24 and the outer support member 22. It will be noted that the resilient web portion 24d is operable to take up endwise expansion of the flange 20. In the particular design shown, several sealing surfaces are provided for sealing the globe member 18 when the globe member 18 is either in expanded or contracted relative position to the support members 23 and 22. It will also be noted that downwardly depending portion 23f of inner support member 23 prevents contraction of globe member 18 so as to become clear of the supporting means; however, under normal conditions this is not expected to happen. It should be noted that the sealing means 24 is particularly well adapted for sealing the cornering surfaces or irregularly shaped flanges particularly at the corners 20a and 20b shown in FIG. 5a. Internal web 24d particularly aids in sealing these corner surfaces.

It should also be pointed out that member 24 lays in the chamber that is mechanically formed by assembly of members 23 and 22 and is not adhered to the sides of the chamber by the use of adhesives. This becomes important when the sealing means deteriorates with age and new sealing means must be inserted in the chamber. Thus, the sealing means 24 may be easily stripped out of the device without having the bothersome job of getting any adhering parts of the sealing means off the chamber surfaces. It also greatly aids in mounting new globe members in the event they should be damaged through unusual circumstances.

A second sealing means 25 which is generally R-shaped in configuration is provided to seal the globe assembly 14 to the housing means 13. This second sealing means may take form of an extruded piece of resilient material having an upper bead portion 25a at one end and a pair of spaced legs 25c and 25e depending downwardly therefrom. A base cross web 25b is intermediate the leg portions 25c and 25e and the bead or head portion 25a. The leg 25c is preferably formed with internally projecting shoulder means 25d which is adapted to mechanically engage the head portion 22j of the outer supporting means 22 of the globe assembly. The outer or right hand surface 25f of leg 25e, as viewed in cross section, is angularly offset relative to the inner surface of the leg and the resultant leg 25e is adapted to wedgingly coact with the groove formed by the head portions 23a and 22j of the inner and outer support members 23 and 22, respectively, when said support members are in assembled relation. This cooperation is probably best shown in FIG. 3. It will be noted that when the parts are in the assembled

relationship shown in FIG. 3 both legs of sealing means 25 are firmly mechanically locked into place and require no adhesive.

The head or bead portion 25a of sealing means 25 is adapted to engage the internal shoulder surface 16 of the housing means 13 when the globe assembly is latched into engagement with the housing means 13. It should be noted that the distance between the top of the bead portion 25a and the web portion 25d provides a rather large manufacturing tolerance of cooperating parts while being operative to maintain a good positive seal between the support means 22—23 and the shoulder flange 16.

It will be generally observed that both of the sealing means, i.e. 24 and 25, are protected generally from the weather and further that they are disposed on the assembly in a manner such that water pockets are not formed, i.e., places where water may accumulate after a rain storm or the like. This cooperation is important because even a very minute crack between the sealing means and the surfaces to be sealed would increase the chance of water damage. This water damage mainly occurs when water is drawn into the interior when a pressure differential develops between the interior of the housing and the outside thereof. In applicants' assembly this possibility of water damage is kept at a minimum due to the positioning of the upper housing relative to the seals as well as by a breathing hole 33 which will be described later.

An alternative embodiment of the first sealing means is shown in FIG. 4, and the major distinction between the alternative embodiment 24' and the embodiment shown in FIG. 3b is that the former is adapted to coact with larger globe flange thicknesses 20'. Thus, by selecting appropriate sealing means 24 or 24', it is possible to use the same supporting members 22 and 23. The sealing means 24' is very similar to 24, the main difference being that the tab portions 24f and 24g of sealing means 24 have been reduced so that the internal surfaces of legs 24a and 24b are substantially straight.

Turning now to the combination latch and hinge means 26. As perhaps best shown in FIGS. 1 and 5b, there are generally three combination latch and hinge means 26 disposed along each side of the luminaire 10. The general functions of the latch and hinge means 26 are to form a detachable latching structure which allows either entry or a hinged swinging of the globe to either side when the hinges on one side are attached and the other side are detached. Thus, a man working on a ladder may enter from either side of the luminaire or easily remove the entire globe assembly.

There are five main physical components to the latch and hinge assembly 26, namely, the lower member 27 which is attached to the globe support means; the movable latch member 28; the latch receiving member 29 which is fixed to the upper housing; the elongated strap spring connecting member 30 which is connected to members 27 and 28; and the lock spring 31 which is fixed to the housing for cooperation with member 28.

The lower latch member 27 is formed with a main portion 27a which fits on surface 22l of the outer support means and outwardly extending lug portions 27b. The bottom portion of the portion 27a terminates in an upwardly extending portion forming a shoulder surface 27c which coacts with surface 22b on the outer supporting member 22. This cooperation aids in fixing member 27 to support member 22. The lower latch member 27 may be fixedly mounted to outer support member 22 by suitable fastening means; the same fastening means 23k which mounts the inner support member 23 to the outer support member 22 may also extend through latch member 27 to mount the latter, as probably best shown in FIG. 5b. The upstanding lugs 27b are formed with apertures which are adapted to receive pin 27e which is disposed transversely of the extending lugs 27b and is spaced

outwardly from the main body portion 27a of the member 27 for receipt of connecting member 30.

The strap-like connecting hinge member 30 is formed with a first portion 30a which is generally bow-like in appearance, the entire member 30 being formed of a spring type metal such as stainless steel or the like. The upper end 30c of member 30 is configured so that it is adapted to pivotally surround pin 28k of the movable latch member, and the lower end 30b is configured to pivotally surround pin 27e of the lower latch member 27.

The movable latch member 28 may be cast out of aluminum and formed in the shape best shown in FIGS. 3, 6, 7, 9, and 10. More particularly, latch member 28 is formed with a pair of spaced, generally paralleled, side members 28a and 28b. The front edges of sides 28a and 28b are generally straight and the back edges are formed with a finger receiving indentation 28g as perhaps best shown in FIGS. 3 and 7. The sidewalls are spacedly connected by an intermediate web portion 28e, the cross section of which is generally similar to and follows along with the back surface of the sidewall portions 28a and 28b. A cross sectional view of the web is shown in FIG. 3. The top of the web is offset downwardly relative to the sidewalls and forms a surface 28f which is adapted to engage the lock spring 31 in a manner hereinafter described. The tops of the sidewalls 28a and 28b are generally offset inwardly a short distance so as to define outwardly extending shoulders 28c and 28d which may be easily grasped in the unlatching operation. These shoulders are best shown in FIG. 9 which is a top view of the latch member.

Near the bottom of the latch member, as viewed in FIG. 3, is a bearing pin 28h, said pin probably best being shown in the perspective view of FIG. 7. Another pin 28k is spaced above pin 28h and is further offset inwardly from the front surface of the latch member 28 as compared with pin 28h for reasons later appearing.

The latch receiving member 29 is mounted upon the housing sidewall 15b with the latch member 28 and is formed with a first portion 29a which is adapted to be fixedly mounted against the housing portion 15b with bolts or the like, as best shown in FIG. 3. The lower portion 29b of the member 29 is offset from the housing and terminates in a hook portion 29c, the latter being adapted to receive the bearing pin 28h of the latch member. This cooperation is perhaps best shown in FIGS. 3 and 7.

When the parts are in the assembled relationship shown in FIG. 3, spring 30 is in a flexed state, i.e., the dimension between pin 28k of the latch member and pin 27e of the lower latch member is slightly greater when the parts are in the latched relation shown in FIG. 3 than when they are in the unlatched relationship shown in dotted line. This flexed relationship, of course, is caused by the load imposed by the positioning of bearing pin 28h which keeps the spring 30 in tension. It should be noted that the yield or spring rate of the spring 30 is much stronger than that of bead 25a of the second sealing means, thus, causing the bead 25a to assume the somewhat squashed position shown in FIG. 3 to assure a good seal between the support members and the inner flange 16 of the housing. It will also be noted that when the latch members are in the latched position shown in FIG. 3, the pins 28k and 27e have an overcenter relationship to pin 28h. This assures positive latching. When the parts are in the disassembled relationship shown in FIG. 7, pins 28k and 27e serve as pivot posts which cooperate with the end surfaces 30c and 30b respectively of strap spring member 30.

To maintain the parts in latched relation when the combination latch and hinge means must serve as a hinge only, a latch lock spring 31 is adapted to coact with the surface 28f on the web portion 28e of the latch member 28 to assure that the latch member is going to remain

in fixed relationship to the housing sidewall portion 15c and will not inadvertently become detached. The lock spring 31 is formed with a first offset portion 31a which terminates in a head portion which is configured somewhat in an S-shape in cross section as shown in FIG. 3.

The spring 31 may be fixed to the housing by screws or bolts 29e which extend through the latch receiving portion 29a, the lock spring 31 and housing 15b. As shown, the head portion of the lock spring is formed with a first curvilinear portion 31c which is adapted to be manually engaged by a thumb or finger or the like and an interlocking reverse curve portion 31b which overlays and retains the web portion 28f in the locked position shown in FIG. 3. It is apparent from the cross sectional view of FIG. 3 that an operator may insert an index finger into the finger receiving indentation 28g to pull the latch member 28 outwardly to the left as viewed in FIG. 3 and simultaneously may slide a thumb upwardly to engage surface 31c of the lock spring 31 to cause the latter to disengage surface 28f of the latch member. Thus, in one quick, simple movement, the lockspring may be disengaged and the latch easily and quickly opened.

Returning now to the entire globe assembly and support means therefor, it should be pointed out that due to the expansion and contraction of the globe assembly, static electricity tends to build up on said globe member. To bleed off this static electricity, a substantially Z-shaped static bleed member 32 is interposed between the sealing means and the flange member at spaced intervals along the periphery of the globe. These static bleed members are not needed if conducting type rubber is used as a sealing material for the first and second seals, but since conducting type rubber at the present time is expensive, we prefer to use bleed strip 32 to ground the globe member 18 to the housing, the latter in turn being grounded through the support means. This grounding of the globe member through the bleed member tends to prevent the attraction of dust, dirt, bugs, etc. to the globe.

As mentioned earlier, it is to be noted that the bottom of the globe assembly may be pierced with a pair of small breathing holes or apertures 33 as shown in FIGS. 5a and 8. These breathing ports 33 are designed to eliminate a pressure differential between the inside and outside of the luminaire. They are disposed on the bottom surface 19 of the globe member so that moisture will not tend to get within the luminaire, and they are covered with a bug and dirt restraining screen or mesh 34 which may be made out of fiberglass and the like. It will also be observed that the apertures 33 may serve as a drain hole for the luminaire in the event that the housing should become pierced in some manner to allow the entry of water.

Although specific embodiments of the invention have been shown and described, it is with full awareness that many modifications thereof are possible. The invention, therefore, is not to be restricted except insofar as necessitated by the prior art by the spirit of the appended claims.

What is claimed as the invention is:

1. A combination hinge and latch assembly for a luminaire having a relatively movable globe and housing, comprising, a stationary member fixedly mounted on said globe, a stationary member mounted on said housing, an elongated latch member having a bearing surface at one end engaging said stationary member on said housing and a handle portion at the other end, an elongated flat spring member having one end pivotally mounted to the stationary member on said globe and another end fixed to said elongated latch member intermediate the ends of said latch member, and a manually actuable lock spring fixed to said housing and normally engaging the handle portion of said latch member to immobilize the latter when in latched relation, whereby the pivotal connec-

tions of said flat spring to said latch member and said fixed member serve as hinges for relative movement of said globe and housing and inadvertent detachment is prevented.

2. A one hand, manually actuatable, combination hinge and latch for a luminaire having a relatively movable globe and housing, comprising, a stationary member fixedly mounted on said globe, a latch receiving member mounted on said housing, an elongated latch member having a bearing surface at one end adapted for engagement with said latch receiving member on said housing, said latch member having a curvilinear web portion formed with a finger receiving indentation and a spring receiving surface near the other end, an elongated flat spring member having the end pivotally mounted to said stationary member on said globe and another end pivotally attached to said elongated latch member intermediate the ends of said latch member, said pivotal attachment of the spring member to the latch member being over the center of a line drawn between said bearing surface and said pivotal attachment to said member on said globe member, and a manually engageable lock spring fixed to said housing and normally engaged with the spring receiving surface portion of said latch member to immobilize the latter, whereby the pivotal connections of said flat spring to said latch members and said fixed member serve as hinges for relative movement of said globe and housing, and one hand unlatching of said latching member may be accomplished by simultaneous engagement of said finger receiving indentation and with said lock spring.

3. In a luminaire having a sealable connection between a relatively movable globe and housing means, a combination hinge and latch and sealing assembly comprising a stationary member fixedly mounted with reference to said globe, resilient sealing means having a yieldable bead portion mounted on said globe for sealing cooperation with said housing, an elongated latch member having a bearing surface at one end and a handle portion at the other end, said bearing surface being adapted for engagement with a portion of said housing means, an elongated curvilinear strap type spring member having one end pivotally mounted to said stationary member and the other end pivotally mounted to said elongated latch member intermediate the ends of said latch member, said strap type spring member in its unflexed state being of a predetermined dimension and having a predetermined spring rate of yield, whereby engagement of said bearing end of said latch member with said portion of said housing means during the latching operation thereof tends to compress said yieldable bead portion of said sealing means prior to the flexing of said strap spring.

4. A luminaire including a housing; a globe assembly comprising, in combination, a globe member having an open end and a marginal outwardly extending flange, said flange being subject to expansion and contraction in accordance with variations in temperature, means for supporting said globe member having a temperature responsive coefficient of expansion different from said flange member so that responsive to variations in temperature relative movement between said flange and said support means will occur and including a vertical portion and a laterally extending portion having a generally channel-shaped opening, first resilient sealing and cushioning means releasably supported on said vertical portion and disposed to engage said housing, and second resilient sealing and cushioning means releasably supported on said flange and disposed with said flange in said channel-shaped opening to absorb said movement and prevent contact between said flange and said support means while providing a positive seal therebetween over a wide range of temperatures; and combination hinge and latch means for connecting said housing and said globe assembly comprising a first stationary member mounted on said

globe member, a second stationary member mounted on said housing, an elongated latch member having a bearing surface at one end in pivotal engagement with said second stationary member and a handle portion at its opposite end, an elongated spring member having one end pivotally attached to said first stationary member and its opposite end pivotally attached to said latch member, said pivotal attachment of said spring member to said latch member being over the center of a line drawn between said pivotal attachment of said spring member to said first stationary member and said pivotal engagement of said latch member with said second stationary member, and a manually engageable lock spring fixed to said housing and normally engaging said handle portion of said latch member to hold said latch member in latched position.

5. A luminaire including a housing; a globe assembly comprising, in combination, a globe member having an open end and a marginal outwardly extending flange, said flange being subject to expansion and contraction in accordance with variations in temperature, means disposed in mechanical supporting relation with said flange for supporting said globe member, said support means having a temperature responsive coefficient of expansion different from said flange member so that responsive to variations in temperature relative movement between said flange and support means will occur, first resilient sealing and cushioning means releasably supported on said support means and disposed to engage said housing, second resilient sealing and cushioning means releasably supported on said flange and disposed between said flange and said support means to absorb said movement and prevent contact between said flange and support means while providing a positive seal therebetween over a wide range of temperatures; and combination hinge and latch means for connecting said housing and said globe assembly comprising a first stationary member mounted on said globe member, a second stationary member mounted on said housing, an elongated latch member having a bearing surface at one end in pivotal engagement with said second stationary member and a handle portion at its opposite end, an elongated spring member having one end pivotally attached to said first stationary member and its opposite end pivotally attached to said latch member, said pivotal attachment of said spring member to said latch member being over the center of a line drawn between said pivotal attachment of said spring member to said first stationary member and said pivotal engagement of said latch member with said second stationary member, and a manually engageable lock spring fixed to said housing and normally engaging said handle portion of said latch member to hold said latch member in latched position.

6. A luminaire including a housing and a globe assembly, said globe assembly including a globe member having an open end and a marginal outwardly extending flange, said flange being subject to expansion and contraction in accordance with variations in temperature, latch receiving means on said housing, combination hinge and latch means connected to said globe assembly and disposed to engage said latch receiving means for connecting said housing and said globe assembly, support means for said globe member having a temperature responsive coefficient of expansion different from said flange so that responsive to variations in temperature relative movement between said flange and said support means will occur and including a vertical portion and a laterally extending portion having a generally channel-shaped opening therein, first resilient sealing and cushioning means releasably supported on said vertical portion of said support means, and second resilient sealing and cushioning means releasably supported on said flange and having portions disposed between the opposite sides of said flange and said channel-shaped opening and an interconnecting portion disposed between the marginal edge

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of said flange and said channel shaped opening, said interconnecting portion being unsupported for flexure in a direction substantially parallel to said flange, whereby said second resilient sealing and cushioning means absorbs said movement and prevents contact between said flange and said support means while providing a positive seal therebetween over a wide range of temperatures.

7. A globe assembly for a luminaire comprising, in combination, a longitudinally recessed globe member having an open end and a marginal outwardly extending flange portion surrounding said open end, said flange being subject to expansion and contraction in accordance with variations in temperature, means for supporting said globe member having a substantially different coefficient of expansion from said flange so that responsive to variations in temperature relative movement between said flange and said support means will occur and including interconnected inner and outer support members, said outer member having a portion disposed beneath said flange in mechanical supporting relation therewith and said inner member having a portion spaced from said portion of said outer member and forming therewith a substantially channel-shaped chamber, and generally U-shaped resilient sealing and cushioning means having a base portion engaging said supporting means between said inner and outer support members, a pair of spaced leg portions disposed between the opposite sides of said flange and said inner and outer support members and a web portion spaced from said base portion and extending between said leg portions, the space between said web and base portions allowing said resilient sealing and cushioning means to absorb said movement and prevent contact between said flange and said support means while providing a positive seal therebetween over a wide range of temperatures.

8. A combination hinge and latch assembly for a luminaire having a relatively movable optical means and

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a housing, comprising, a stationary member mounted on said optical means, a stationary member mounted on said housing, an elongated latch member pivotally mounted at one end on one of said stationary members and having a handle portion at its other end, an elongated spring member having one end pivotally engaging the other of said stationary members and another end pivotally engaging said elongated latch member at a point displaced from the pivotal axis of said latch member, and a manually releasable lock member fixed to the one of said stationary members and normally engaging the handle portion of said latch member to prevent pivotal movement of the latter when in latched relation so that the pivotal connection of said spring to said latch member and the other of said stationary members serve as hinges to permit relative movement of said optical means and housing and to prevent inadvertent detachment thereof, the release of said lock member allowing pivotal movement of said latch member to permit detachment of said housing and optical means.

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