

[72] Inventor **James R. Burton**
Franklin, Wis.
[21] Appl. No **740,618**
[22] Filed **June 27, 1968**
[45] Patented **Feb. 2, 1971**
[73] Assignee **McGraw-Edison Company**
Milwaukee, Wis.
a corporation of Delaware

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Primary Examiner—John M. Horan
Assistant Examiner—Robert P. Greiner
Attorney—Charles A. Prudell

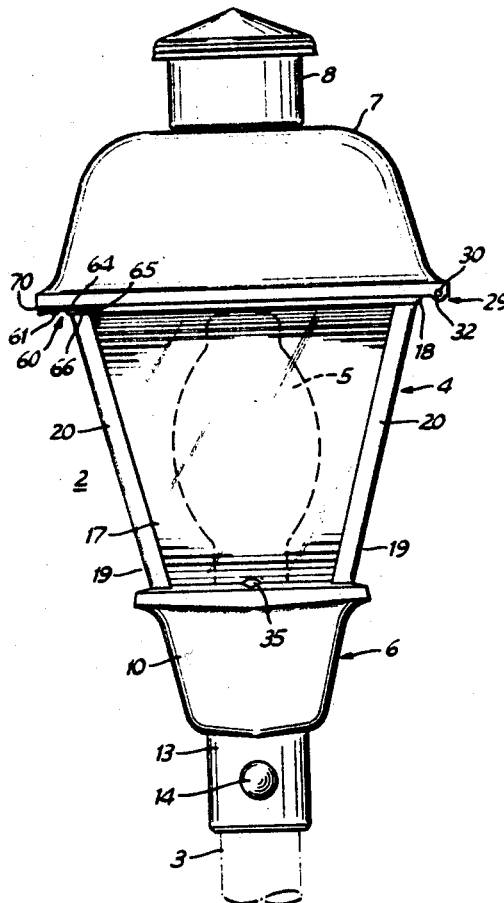
[54] **LUMINAIRE HOUSING**
5 Claims, 7 Drawing Figs.

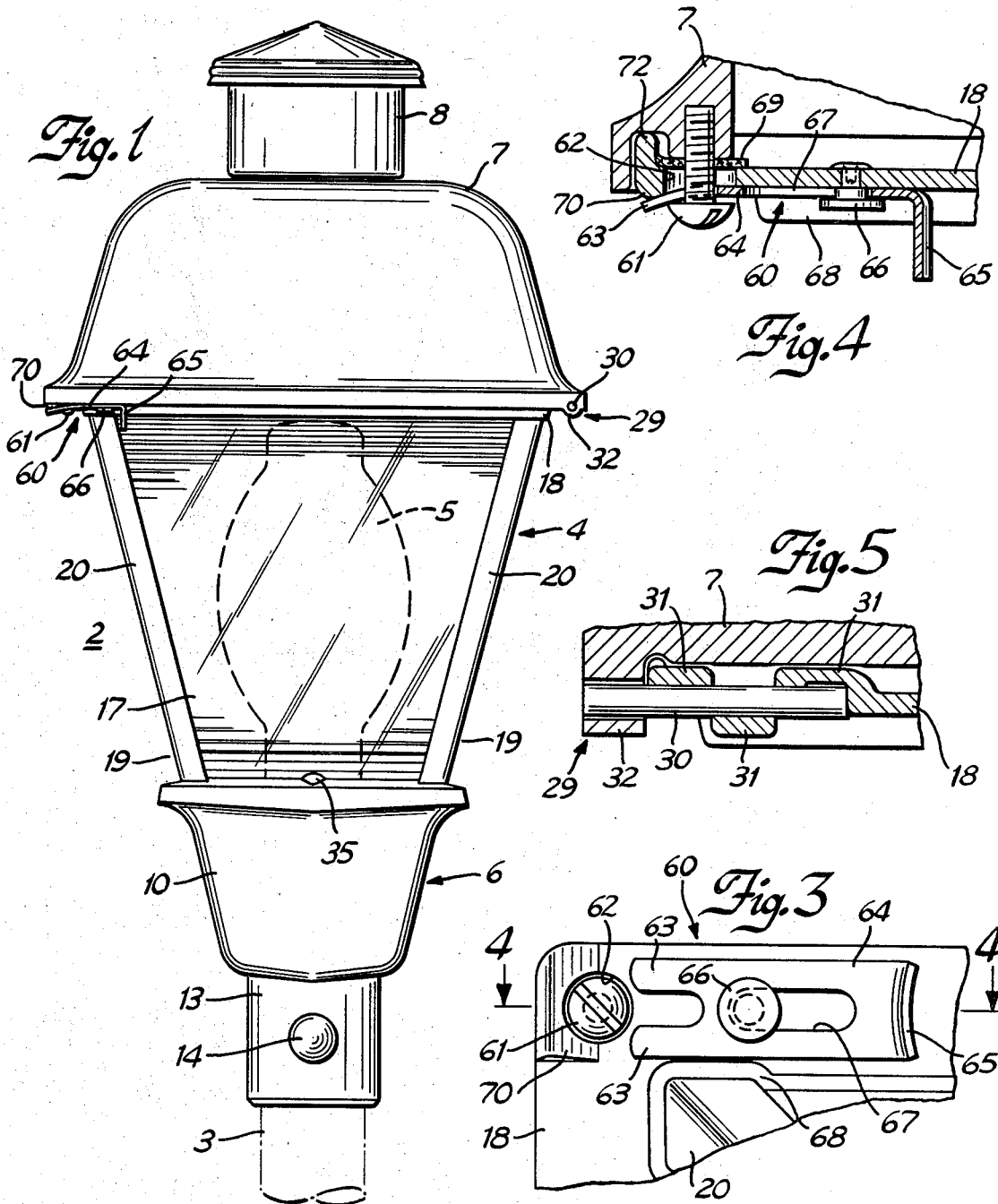
[52] U.S. Cl..... 240/11.2,
240/11.4, 240/25, 240/106, 292/87, 292/147

[51] Int. Cl..... F21s 1/10,
E05c 19/06

[50] Field of Search..... 292/91,
147, 87, 88, 89 (Inquired); 240/11.2, 11.4, 25, 84,
106

ABSTRACT: A colonial styled outdoor post top luminaire assembly including a light source housing consisting of a bottom member, a cover and an intermediate light-transmitting portion. The light-transmitting portion comprises four light-transmitting panels removably mounted in a supporting frame to form a four-sided inverted frustopyramidical light-transmitting area. The cover is hingedly fastened to the frame and releasably fastened thereto by sliding resilient latch means.





Inventor
James R. Burton
By Thomas E. Torphy
Attorney

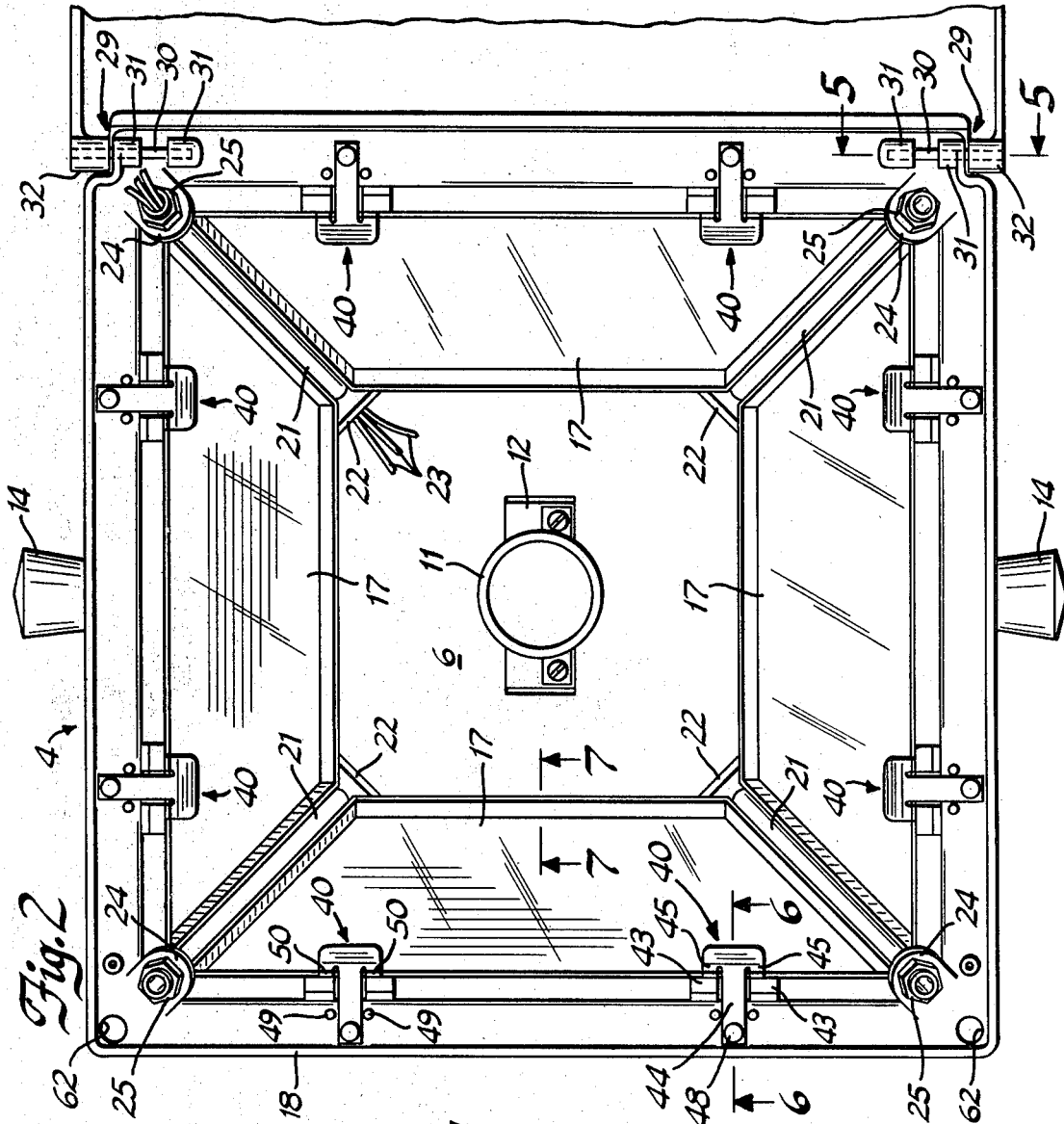


Fig. 2

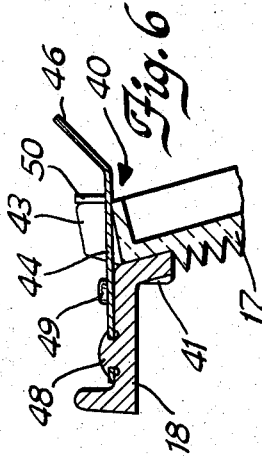


Fig. 6

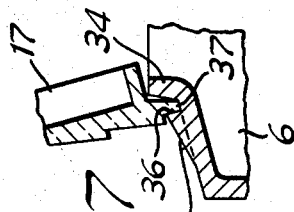


Fig. 7

Inventor
James R. Burton
By Thomas E. Torphy
Attorney

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LUMINAIRE HOUSING

BACKGROUND OF THE INVENTION

This invention relates to colonial styled luminaire assemblies of a size and type suitable for outdoor areas such as streets or parking areas.

Colonial styled luminaires of the aforescribed type are currently meeting with increased favor, and the production of such luminaires is becoming an increasingly competitive business. Luminaire assemblies of this type must not only be efficient lighting instruments, but must be adaptable, easily serviced and durable. Consistent with these objectives, the cost of these assemblies must be minimized for competitive reasons.

It is, therefore, an object of the invention to provide a luminaire assembly of the aforescribed type which is efficient, durable, easily service and may be economically produced.

Other objects and advantages of the invention will become apparent upon reading the following description.

SUMMARY OF THE INVENTION

The objects of the invention are accomplished by providing in a luminaire assembly housing means for a light source comprising an open-topped light-transmitting enclosure having an upper supporting peripheral rim. A cover is hingedly attached to the rim top to provide access to the interior of the light source housing. Simple improved sliding latch means are provided for releasably fastening the cover to the rim.

The light-transmitting enclosure comprises a plurality of light-transmitting panels supported by a framework portion of the housing. The framework includes a base portion of the aforesaid rim. The base portion is provided with means for engaging the lower edge of the light-transmitting panel means, and resilient clip means are provided on the rim for releasably engaging the upper edge of the light-transmitting panel means.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an elevational view of an outdoor luminaire assembly incorporating the present invention.

FIG. 2 is an enlarged fragmentary top view of the luminaire assembly of FIG. 1 with the cover in an open position.

FIG. 3 is a bottom view of a portion of the luminaire assembly shown in FIG. 1.

FIG. 4 is a fragmentary sectional view taken on line 4-4 of FIG. 3. FIG. 5 is a fragmentary sectional view taken on line 5-5 of FIG. 2.

FIG. 6 is a fragmentary sectional view taken on line 6-6 of FIG. 2.

FIG. 7 is a fragmentary sectional view taken on line 7-7 of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings, FIG. 1 shows a colonial style outdoor luminaire 2 adapted to be mounted on top of a tubular supporting pole 3. The luminaire 2 includes a light source enclosure portion 4 for enclosing a light source 5 which may preferably be a mercury vapor arc discharge lamp. Luminaire 2 further includes a base 6, a cover 7 and a cupola 8 which is mounted on top of cover 7. Cupola 8 may serve to enclose a photoelectric control (not shown) and is styled to resemble the chimney formerly required on the old candle and gas lights.

Base member 6 includes an upper portion which may support the socket 11 for lamp 5 and the ballast power supply 12 for lamp 5. Such ballasts and sockets are of conventional construction, and the details of their construction form no part of the present invention. Base member 6 also includes a collar 13 which fits over the end of pole 3 and may be fastened thereto by suitable means such as a set screw (not shown). A pair of opposite radially extending ladder supports 14 are formed integrally with collar 13.

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Light enclosure 4 comprises four light-transmitting refractor panels 17 mounted within a framework comprising an upper rim 18 supported by four corner posts 19 which are, in turn, supported by base 6. Refractors are preferably molded of transparent plastic. Each of corner posts 19 consists of an outer angle iron 20 and an inner tubular member 21, best shown in FIG. 2. The ends of angle irons 20 fit into respective conforming recesses formed in base 6 and rim 18. Angle irons 20 are held in place by compressive forces applied by tubes 21. The lower ends of tubes 21 are threaded into gussets 22 which extend inwardly from the inner four corners of upper portion 10 of base 6. The open interiors of tubes 21 extend through gussets 22 so that electrical wires 23 may be placed through any one of tubes 21 to provide connection to the photocontrol which may be housed within cupola 8. The threaded upper ends of tubes 21 extend through apertures in tabs 24 which extend inwardly from the four corners of rim 18. Nuts 25 are tightly turned on the upper ends of tubes 21 to hold the framework of enclosure 4 together. Cover 7 is hingedly attached to one side of rim 18 by a pair of hinges 29, as shown in FIG. 2. FIG. 5 provides a sectional view taken through one of hinges 29 to show the detailed construction thereof. Stainless steel rolled spring pins 30 are pressed endwise into the apertures formed between lugs 31 formed in rim 18 and extend from rim 18 loosely into apertures in lugs 32 formed in cover 7.

Refractors 17 are held in place by means engaging the lower and upper edges thereof. As shown in FIG. 7, a lip 34 extends along the upper edge of base 6 on each of the four sides thereof. At the midpoint of each of the four sides of base 6 a protuberance 34 extends upwardly from the upper surface thereof, spaced from lip 34 at a distance sufficient to form a groove 36 to accommodate a lip 37 formed along the lower edge of each of refractors 17. The lower edges of refractors 17, therefore, are constrained against lateral movement, but refractors 17 may be lifted out of place for disassembly.

The upper edges of refractors 17 are held in place by spring clips 40. Two spring clips 40 are provided for each refractor 17. The construction and operation of each spring clip is the same. FIG. 6 best illustrates how the upper edge of refractor 17 rests against a depending lip formed on the inner edge of rim 18. The upper edges of refractors 17 are constrained against upward or inward movement by the engagement of spring clips 40 with the upper edges of refractors 17 and with the inner surfaces of lugs 43 formed integrally with refractors 17 and extending from the upper edges thereof. Two lugs 43 are associated with each of spring clips 40.

Each of spring clips 40 is of a generally T-shaped configuration comprising a leg 44 and laterally extending arms 45. An upwardly bent tab portion 46 is formed on the inner edge of spring clip 40 to facilitate the manipulation thereof. With reference to FIG. 6 in particular, the outer end of leg 44 is fastened to rim 18 by a rivet 48 which is formed integrally with rim 18. A pair of protuberances 49 extend upwardly on either side of leg 44 to prevent the rotation of spring clip 40 about rivet 48.

A pair of tabs 50 extend upwardly from the edges of arms 45 which face lugs 43 to provide an increased bearing area against the inner sides of lugs 43.

The leg 44 of each of spring clips 40 extends laterally inwardly between the associated pair of lugs 44, and the resilience of spring clips 40 biases the tabs 50 into tight engagement with the inner surfaces of lugs 43. Spring clips 40 also resiliently bear against the upper edges of refractors 17, as shown in FIG. 6. It can be seen then that spring clips may be disengaged from the upper edges of refractors 17 by lifting force applied to tabs 46. As arms 45 clear the upper ends of lugs 43, the upper edges of refractors 17 become free to move inwardly. As the upper edges of refractors 17 are moved inwardly and clear the inner ends of spring clips 40, refractors 17 may be lifted and removed from the assembly since lips 37, formed on the lower edges of refractors 17, are free to be lifted from grooves 36.

Refractor 17 may be easily replaced by first inserting lip 37 into groove 36. Pressure is then applied outwardly on refractor 17, and the upper edges of lugs 43 engage the sloping lip 43 on spring clip 40. Spring clip 40 is thereby cammed upwardly, and lugs 43 will move under arms 45. As refractor 17 moves to its assembled position, lugs 43 will clear arms 45, and spring clip 40 will snap downwardly to thereby securely latch refractor 17 in place.

The cover 7, which is hingedly mounted to one side of rim 18, is securely fastened in its closed position by a pair of sliding latches 60, the construction of which is most clearly illustrated in FIGS. 4 and 3. Headed pin means is provided comprising a round-headed screw 61, which is turned tightly into an aperture in cover 7. Headed screw 61 is of such a length that its head is a substantial distance below the lower surface of rim 18 when cover 7 is in its fully closed position. Apertures 62 are provided in rim 18 to permit the passage of the heads of screws 61 through rim 18. As shown in FIG. 4, when cover 7 is locked in its fully closed position, the head of screw 61 is engaged by a pair of flexible legs 63 which straddle the shank of metal latch member 64. A manually engageable tab 65 depends from the opposite end of slide 64. Tab 65 is curved slightly to increase its resistance to bending. Slide 64 is slideably retained on the lower surface of rim 18 by a shoulder rivet 66 which passes through a slot 67 formed in slide 64. Rotation of slide 64 about screw 66 is prevented by its engagement with a wall 68 which depends from the lower surface of rim 18 and is arranged generally parallel to the direction of movement of slide 64. A felt washer 69 surrounds screws 61 above rim 18 to prevent entry of insects through aperture 62.

When slide 64 is moved into engagement with headed screw 61, the ends of legs 63 engage a ramp portion 70 formed on the lower surface of rim 18 adjacent aperture 62. As slide 64 is pressed into its final position, the legs 63 of slide 64 are bent downwardly to resiliently and firmly engage the head of screw 61. This bending of legs 63 serves to tightly fasten cover 7 in place, to increase the frictional resistance of movement of slide 64 to an unlatch position and to press cover 7 tightly against the upper edge 72 of rim 18 to prevent entry of insects therebetween.

While the embodiment herebefore described is effective to accomplish the stated objects, it is not intended that the invention be limited to the disclosed embodiment since it is adaptable to modification without departing from the scope of the appended claims.

I claim:

1. An outdoor luminaire comprising:
 - a light source;
 - housing means for said light source comprising an open-topped lower portion having sidewalls including light-transmitting means;
 - means for supporting said light-transmitting means including upper rim means;
 - a cover hingedly attached to a first side of said upper rim means;
 - means for releasably fastening said cover to said upper rim means in a closed position comprising headed pin means attached to said cover and depending downwardly therefrom;
 - An aperture in said rim means for receiving said pin means from above, whereby the head of said headed pin is positioned below said rim means when said cover is in said closed position;
 - latch means slideably mounted on said lower surface of said upper rim means and comprising a forked end having two

flexible legs for being moved to a position straddling said pin to an engaged position between said head and the lower surface of said upper rim means to prevent withdrawal of said pin to thereby fasten said cover to said upper rim means; and

ramp means formed on the lower surface of said rim means which is engaged by the ends of said legs on said latch means as said latch means is moved to its fully engaged position, said ramp means moving said ends in a direction downwardly transverse to the direction of movement of said latch means for resiliently forcing said legs against said head to thereby cause said latch means to tightly engage said head and to increase the frictional resistance of movement of said latch means to an unlatch position.

2. An outdoor luminaire assembly comprising:
 - a light source;
 - a housing for said light source comprising at least one light-transmitting panel arranged on a side of said housing, and a frame for supporting said panel comprising a bottom member and an upper rim portion;
 - means formed in said bottom member for receiving the lower edge of said panel to thereby support said panel;
 - clip means for engaging the upper edge of said panel when said panel is assembled in said housing against the inner surface of said frame comprising a resilient member mounted on said upper rim portion and extending inwardly into said housing over the upper edge of said panel, said member having a tab portion located generally inwardly of said panel; and
 - lug means extending upwardly from said panel in a position to engage the tab portion of said resilient member on the inner side of said panel to thereby hold said upper edge of said panel against inward movement.
3. The invention as defined in claim 2 in which:
 - said means formed in said bottom member for receiving the lower edge of said panel comprises a groove formed in said bottom member; and
 - said panel further comprises a lip formed on the lower edge of said panel for engaging said groove.
4. An outdoor luminaire assembly comprising:
 - a light source;
 - a housing for said light source comprising a light-transmitting panel on a side of said housing and a frame for supporting said panel having a bottom member and an upper rim portion, said panel comprising a pair of lugs extending from the top edge of said panel;
 - means formed in said bottom member for receiving the lower edge of said panel to thereby support said panel;
 - clip means for engaging the upper edge of said panel comprising a T-shaped resilient member having a leg element and two arms extending oppositely from a first end of said leg element;
 - said leg element being attached to said frame and at its second end and extending over the upper edge of said panel;
 - said arms engaging the side of said lugs opposite to the frame; and
 - said clip means being resiliently liftable at the end of said clip adjacent said arms to release said arms from engagement with said lugs.
5. The invention as defined in claim 4 together with:
 - an upwardly slanted cam member extending from said first end;
 - whereby said clip means may be lifted over said upper edge of said panel when said panel is pressed into position from the end of said clip means opposite said frame.