April 9, 1968 H. A. BREEDING ETAL 3,377,473

FLOODLIGHT

Filed March 22, 1965 3 Sheets-Sheet 1

Fig. 1.

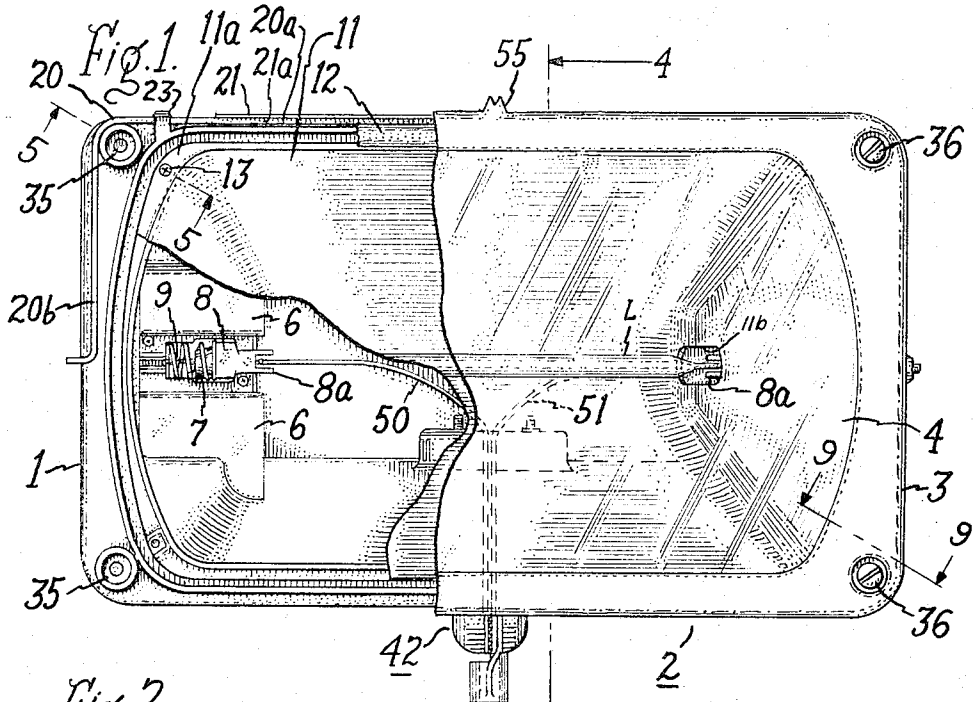
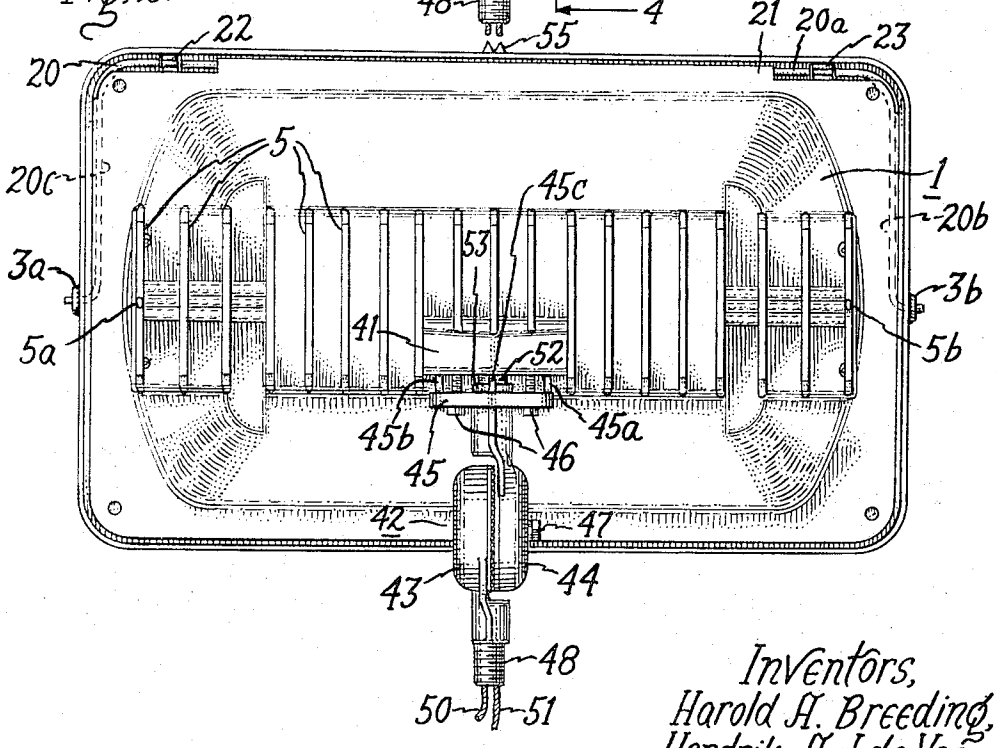


Fig. 2.



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FLOODLIGHT

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Fig. 8.

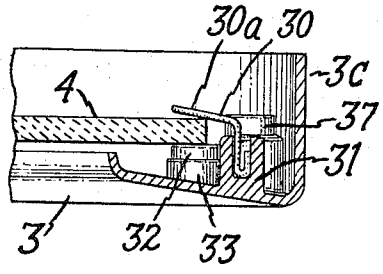


Fig. 9.

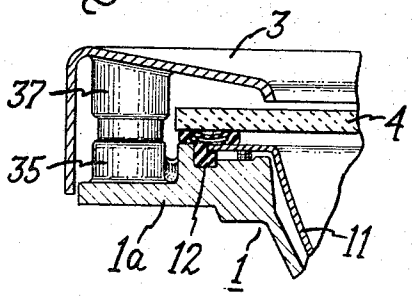


Fig. 10.

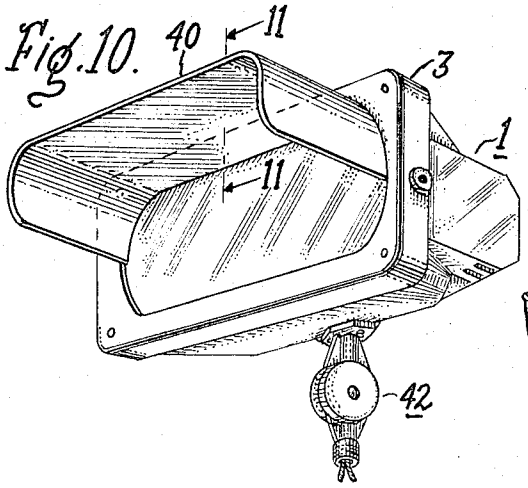


Fig. 11.

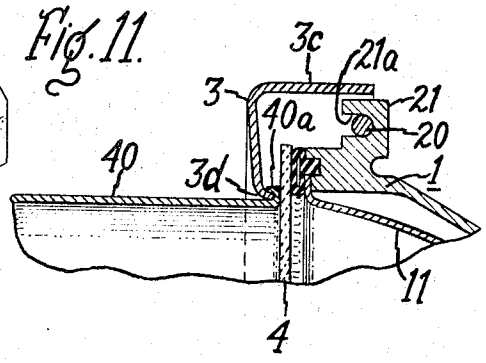
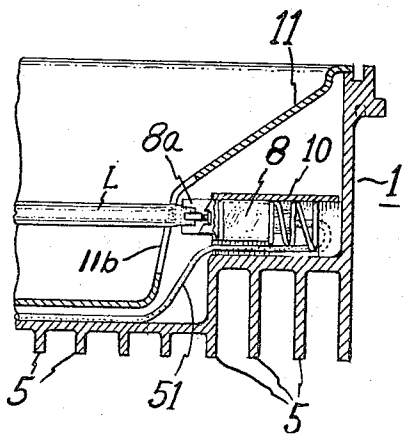


Fig. 1a.



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FLOODLIGHT

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Fig. 3.

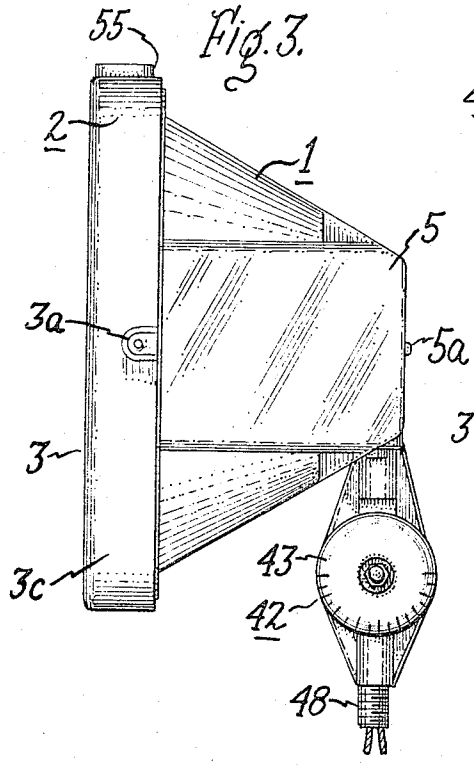


Fig. 4.

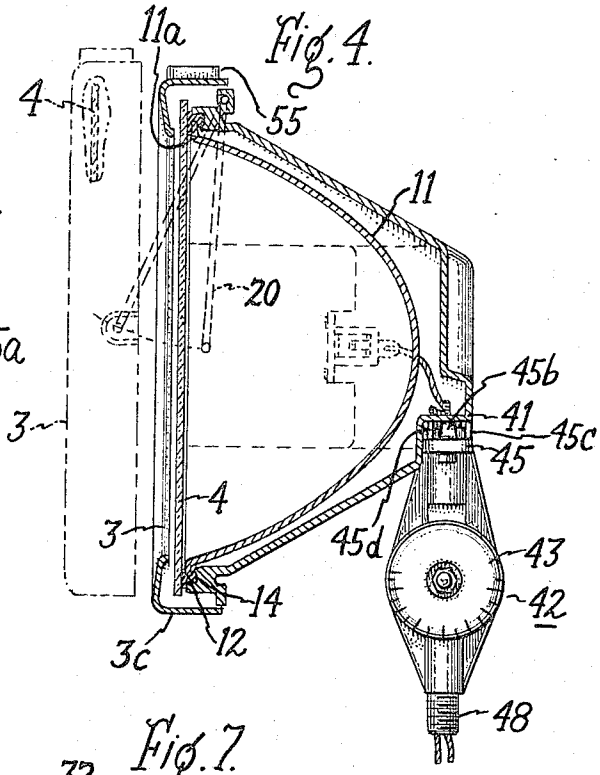


Fig. 5.

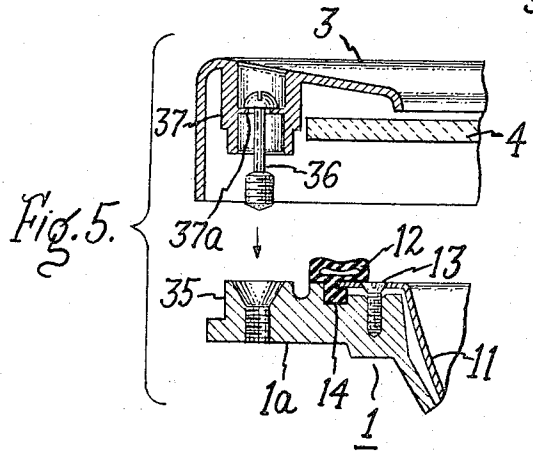


Fig. 6.

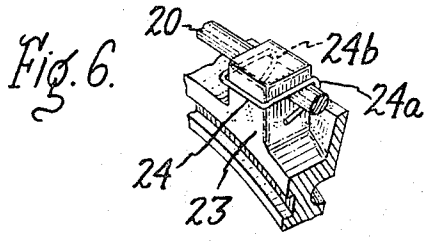
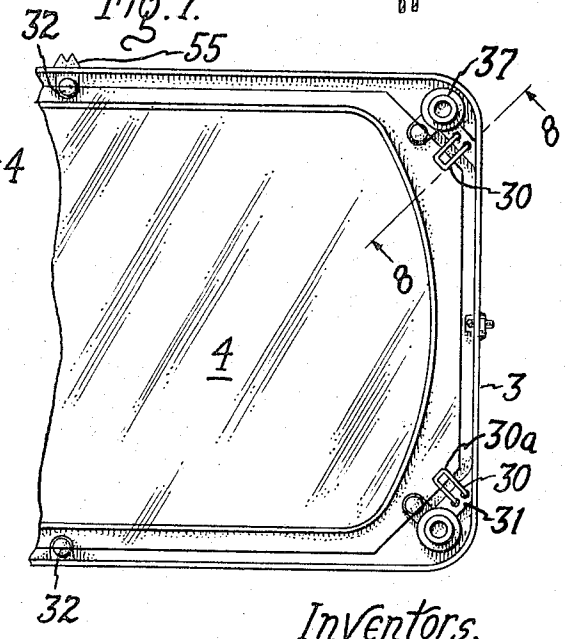


Fig. 7.



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3,377,473

FLOODLIGHT

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Filed Mar. 22, 1965, Ser. No. 441,646
18 Claims. (Cl. 240—3)

ABSTRACT OF THE DISCLOSURE

Floodlight comprises a housing enclosing a reflector and lamp sockets and covered at its front opening with a framed window pane secured to the frame with push-in clips and held spaced from the frame to provide a drainage opening therebetween, the frame being hingedly secured to the housing by a wire hinge permitting the frame to be moved entirely away from the housing opening and having means for securing the frame to the housing while limiting the compression on a gasket mounted on the reflector between the frame and housing.

The present invention relates to floodlights, and more particularly to a compact weatherproof floodlight adapted for use in various outdoor lighting applications.

Prior types of floodlights, such as those used for illuminating building facades, signs, sports areas, and the like, have had certain drawbacks in terms of manufacturing procedures and economics, maintenance difficulties, and other respects. For example, in prior floodlight constructions, the door frame attachment to the floodlight housing was often such that it did not permit unhindered access to the interior of the device for maintenance operations, such as re-lamping. In other cases, the mounting and sealing arrangements for the cover window were difficult to manufacture and assemble and did not provide adequately for drainage of water off the unit or prevent leakage through the window seal of accumulated water. In known types of floodlights, the lamp sockets were commonly inserted through openings in the housing walls, through which water would have access into the unit and lead to operating problems.

It is an object of the invention to provide an improved floodlight construction which avoids these and other disadvantages of the prior types of floodlights.

It is another object of the invention to provide a compact, weatherproof, economically manufactured floodlight device which is capable of rapid installation and simple maintenance, and is adapted for a wide variety of outdoor lighting applications and conditions.

Specific objects of the invention include the provision of an improved closure arrangement for the floodlight to enable unimpeded access to the light source and reflector of the floodlight for facilitating lamp removal and replacement or other servicing, of an improved window mounting construction to permit exterior drainage of water therefrom while effectively sealing the interior of the floodlight, and of a floodlight housing having improved cooling and sealing features.

Other objects and advantages will become apparent from the following description and the appended claims.

With the above objects in view, the present invention in one of its aspects relates to a floodlight which comprises a housing having walls defining an interior chamber and a front window opening, lamp socket means mounted on the walls of the housing in the chamber, a concave reflector fitting within the interior housing chamber and having at least one opening adjacent the lamp socket means, cover means including a transparent, lenticular or translucent window pane closing the front window opening of the housing, and hinge means swingably conecting the cover means to the housing for movement of the cover means entirely away from the front window opening to a position spaced a substantial distance therefrom to provide unimpeded access to the interior housing chamber.

The invention will be better understood from the following description taken in conjunction with the accompanying drawings, in which:

FIGURE 1 is a front view, partly broken away, of a floodlight constructed in accordance with the invention;

FIGURE 1*a* is a fragmentary sectional view of a portion of the FIGURE 1 device showing the lamp socket arrangement;

FIGURE 2 is a rear view of a FIGURE 1 device;

FIGURE 3 is a side view of the device of FIGURES 1 and 2;

FIGURE 4 is a cross-sectional view of the FIGURE 1 device taken along the line **4—4**;

FIGURE 5 is an enlarged sectional view in exploded form of a portion of the FIGURE 1 device taken along the line **5—5**;

FIGURE 6 is a fragmentary detailed view of a portion of the hinging structure of the FIGURE 1 device;

FIGURE 7 is a fragmentary view of the rear side of the cover unit of the FIGURE 1 device;

FIGURE 8 is an enlarged detailed view in section of a portion of the cover unit shown in FIGURE 7 taken along the line **8—8**;

FIGURE 9 is an enlarged detailed view partly in section of the FIGURE 1 device as seen along the line **9—9** of FIGURE 1;

FIGURE 10 is a perspective view of the floodlight with a shield attached; and

FIGURE 11 is an enlarged fragmentary view in section of the FIGURE 10 assembly taken along the line **11—11**.

Referring now to the drawings, and particularly to FIGURE 1, there is shown a floodlight construction in accordance with the invention and comprising a housing **1** of generally rectangular shape and made, for example, of cast aluminum and having an open front closed by a cover unit **2** comprising frame **3** having mounted therein transparent, lenticular or translucent window pane **4** made of tempered, heat and shock resistant glass, or the like. The rear of housing **1** is formed with a number of integral fins **5** (see FIGURE 2) for radiating and dissipating heat generated in the housing during operation of the floodlight. At opposite ends of housing **1** the walls of the housing are formed on their inner surfaces with bosses **6** defining therebetween a recess **7** in which is received a lamp socket **8** formed of suitable electrical insulating material such as porcelain or steatite and having embedded therein a suitable electrically conducting lamp contact member. Also received in recess **7** is coil spring **9** which urges socket **8** into yieldable engagement with shoulder portions of bosses **6** as shown and with projecting ears **8***a* of the socket extending beyond bosses **6**. Plate **10** (see FIGURE 1*a*) secured by screws or the like to bosses **6** covers recess **7** and retains socket **8** and spring **9** therein.

Concave reflector **11** fitting within housing **1** is formed with a flanged rim **11***a* (see FIGURES 4 and 5) having a gasket **12** thereon which seats on the rim of housing **1** when reflector **11** is in operative position, the reflector being secured to housing **1** by a plurality of screws **13** or the like. Reflector **11** is bent inwardly at its opposite end walls, as shown in FIG. 1*a*, and has openings **11***b* at opposite ends adjacent sockets **8**, the sockets being spaced rearwardly of the openings. Access is thus provided for operative yieldable engagement of the contact ends of an elongated lamp L with sockets **8**, while the lamp ends are

protected from excessive heating which might occur if they were located on the front side of reflector **11**.

As seen in FIGURE 1*a*, which shows details of the lamp socket and contact arrangement and wherein the front projecting ear **8***a* is partly broken away for clarity, the contact end of lamp L extends between ears **8***a* and engages the socket contact which projects into the space between ears **8***a*.

As seen in FIGURES 4 and 5, housing **1** is formed with a continuous groove **14** extending around its rim in which gasket **12** is received and seated when reflector **11** is placed in position. Gasket **12** is preferably made of a heat resistant resilient material such as si'icone rubber and preferably has a hollow portion as shown in FIGURE 5. When reflector **11** is screwed into assembly with the rim of housing **1**, gasket **12** is compressed and forms a liquid tight seal between the perimeter of reflector **11** and housing **1**. When compressed, gasket **12** tends to acquire a shape such as shown in FIGURES 5 and 9 wherein its exposed sealing surface has lateral edge portions higher than the depressed central portion, and the gasket thus provides in effect a double seal.

Cover unit **2**, comprising frame **3** and window pane **4**, is swingably attached to housing **1** by means which enable complete displacement of cover unit **2** away from the housing opening for free and unhindered accessibility to the interior for replacing the lamp and which also provide for ready and accurate positioning of the cover unit **2** over the housing opening for closing the latter.

For this purpose, cover unit **2** is swingably attached to housing **1** along the upper edge thereof by a detachable wire bail or hinge member **20** of generally U-shape having a main portion **20***a* and arms **20***b*, **20***c*. Housing **1** is formed along its upper edge with a channel member **21** having an elongated groove **21***a* open toward the front of the housing and in which main portion **20***a* of wire hinge **20** is seated. Housing **1** is further formed with bearing bosses **22** and **23** (see FIG. 2) spaced respectively from opposite ends of channel member **21** and having rearwardly facing grooves therein in which wire hinge **20** is also received. The grooves in member **21** and bosses **22**, **23** are sufficiently wide to permit wire hinge **20** to freely rotate therein. As seen in FIGURE 6 showing the details of construction of bearing bosses **22**, **23**, a U-shaped wire retaining member **24** is arranged embracing boss **23** and having looped arm portions **24***a*, *b* engaging wire hinge member **20** for holding the latter within the groove on the rear side of the boss. Wire hinge **20** is so proportioned that main portion **20***a* extends nearly to the opposite ends of housing **1**, and arm portions **20***b*, **20***c* each have a length approximately half the vertical dimension of the front face of housing **1**, as viewed in FIGURE 1. The free ends of arm portions **20***b*, **20***c* are bent outwardly and are inserted in apertures formed in embossed portions **3***a*, **3***b* in the sides of cover frame **3** for hingedly connecting cover unit **2** to housing **1**. The arrangement is such that cover unit **2** is pivotally secured to the bent ends of arms **20***b*, *c* which are yieldably retained in position in the frame apertures by the inherent resiliency of arms **20***b*, *c*, which in normal (i.e., unstressed) condition diverge somewhat from each other. Hinge arms **20***b*, *c* may be readily disengaged from frame **3** simply by pushing them inwardly toward each other. By virtue of the described construction, cover unit **2** may be lifted (as seen in FIGURE 4) and swung completely away from the opening in housing **1** and laid on top of housing **1**, thereby providing free access to its interior. The hinge arrangement also provides for simultaneous contact and uniform compression of window pane **4** with all parts of sealing gasket **12** on reflector **11** as cover unit **2** is moved into closed position over housing **1**, thus obtaining better sealing conditions and prolonging the useful life of the gasket.

Frame **3** of cover unit **2** is formed with a peripheral flange **3***c* which surrounds and substantially covers the described hinging and gasket structures adjacent the housing opening when the cover unit **2** is secured in closed position over housing **1**, as seen in the side view of FIGURE 3. The means for securing frame **3** to the housing in closed position comprise internally threaded hollow bosses **35** in the corners of flange **1***a* of housing **1** (see FIGURES 5 and 9) and screws **36** arranged in tubular bosses **37** projecting from the rear surface of frame **3** for engagement with threaded bosses **35**. As seen in FIGURE 5, the head of screw **36** rests on an annular ledge **37***a* constricting the passage in boss **37**, so as to draw frame **3** into closed position over housing **1** when the screws **36** are tightened. As seen in FIGURE 9, when frame **3** is in fully closed position, window pane **4** compresses gasket **12** in sealing relation, but the extent of compression is limited by the engagement of tubular boss **37** of frame **3** with hollow boss **35** of housing **1**. Bosses **35** and **37** thus serve as combined stop and fastening means.

The recessed position of the head of screw **36** within tubular boss **37** lessens the risk of ready tampering with the fastening of the floodlight cover unit without the aid of a screwdriver, while at the same time the recess serves as a guide for inserting a screwdriver to unfasten the door when necessary. Advantageously, screws **36** are made captive within the frame bosses **37** to prevent their loss when disengaged from the housing for removing the cover unit. This may be accomplished, for example, by providing enlarged threaded end portions of the screws as shown in FIGURE 5, wherein the diameter of the threads at the crown is greater than the diameter of the aperture in ledge **37***a*, while the diameter at the base of the threads is smaller than the latter aperture to permit the screws to be removed by rotation in the aperture.

Referring now to FIGURE 7 showing the inner (or rear) side of cover unit **2**, the mounting of window pane **4** on frame **3** is achieved by means of generally U-shaped spring wire clips **30** removably secured to frame **3** at its four corners. As seen in the detailed view of FIGURE 8, each spring clip **30** is bent at an angle and has two looped end portions fitting snugly in a pair of adjacent holes formed in boss **31** in frame **3**, and has a main bight portion **30***a* bearing resiliently against the inner side of window pane **4** for holding the latter in engagement with resilient bearing pads or bumpers **32** suitably secured to a supporting boss **33** on frame **3**. A plurality of such resilient bumpers **32** are provided spaced around frame **3** for holding window pane **4** spaced from the inner frame surface.

When cover unit **2** is placed in closed position over housing **1** and screws **36** tightened in housing bosses **35**, window pane **4** compresses gasket **12**, as shown in FIGURE 9, to provide a fluid tight double seal for the interior of the housing. At the same time, window pane **4** is spaced from frame **3** around most of its margin, and there is provided thereby means for readily draining any water which may fall on the surface of the window pane, and thus assisting in maintaining the cover glass **4** clean when the latter is arranged facing substantially upwardly.

Where desired, a shield or visor **40**, as shown in FIGURE 10, may be readily attached to the floodlight unit. For this purpose, the inner edge of door frame **3** which defines the window opening is advantageously formed with a rearward lip **3***d* whereby shield **40**, which has a complementary lip portion **40***a*, may engage frame **3**. Shield **40** may be attached to the floodlight simply by loosening the four front retaining screws **36** and pushing window pane **4** inwardly somewhat so that lip **40***a* of the shield can be inserted in the space between window pane **4** and frame **3** and snapped into engagement with lip **3***d* of frame **3**. The shield is then secured firmly in place by tightening screws **36**. Similarly an end shield or a box-like shield utilizing two pieces as described above might be likewise formed and installed, as desired.

The rear side of housing **1** is formed with an integral supporting boss **41** (see FIGURES 2 and 4) to which is secured a swivel support **42** comprising separable interengaging toother members **43** and **44**. Swivel member **44**

is integrally formed with a connecting bar **45**, the latter having projecting contact members **45***a*, *b*, *c* and *d* spaced therearound which engage housing boss **41**. Retaining bolts **46** are screwed into boss **41** to secure connecting member **45** to the housing. Connecting support member **45** thus has only limited contact with housing **1**, and this arrangement coupled with the provision of a space between member **45** and housing boss **41** for passage of cooling air, results in substantial reduction in heat flow between the housing and its exterior support and produces more than 100° C. lower temperature in the exterior support as compared to that in the housing.

Swivel member **43**, which is separably connected to swivel member **44** by bolt **47** passing through the axes of these members, is integrally formed with a threaded adaptor portion **48** for threaded engagement with any suitable support. As will be understood, adaptor portion **48** may be of any other suitable form for desired mounting purposes, as for example an apertured cross-bar for bolting to a fixed support.

For the purpose of providing a conduit for wire leads **50**, **51** connected to lamp sockets **8** (see FIGURE 1), housing boss **41** is provided with a tubular projection **52** (see FIGURE 2) which opens into the interior of housing **1**, and connecting bar **45** is formed with a mating thermally insulating tubular projection **53** which telescopes over tubular silicone rubber coupling **52**. The remaining portions of swivel members **43** and **44** to which tubular projection **53** is connected are hollow and form, in the support assembly shown in FIGURE 2, a continuous conduit through which the wire leads **50**, **51** pass from the interior of housing **1** to the exterior, or to other hollow supporting members or conduits as desired.

Sighting means for aiding in the alignment of the floodlight beam are provided by the ends of the wire hinge **20** projecting from the sides of frame **3** in conjunction with raised portions **5***a*, **5***b* on the cooling fins **5** at each end of the unit (see FIGURES 2 and 3). Additionally, a channel-type sight **55** may be provided in the top central portion of door frame **3** for this purpose.

The invention thus provides a floodlight of compact and rugged construction which affords numerous advantages. The mounting of the cover glass spaced from the frame allows the glass to be readily washed off, such as by rain, while providing for draining of the water entirely away from the unit. The combined stop and fastening means described provides for accurate positioning of the door frame on the housing, for limited compression of the sealing gasket which prolongs its useful life, for good heat transfer between the frame and housing, and for retaining the fastening screws in loss-proof position and making them less subject to tampering. In addition, the hinge means described enables the door frame to be somewhat flexibly connected to the housing to facilitate alignment of the fastening screws in securing the door frame to the housing, it provides for the door frame to be swung completely away from the front opening and laid on top of the housing if desired, and it permits ready detachment of the entire cover for cleaning or change of the glass pane if desired. Furthermore, the socket mounting arrangement is such that the socket supports are completely within the housing and thus it avoids the leakage problems attendant on insertion of socket supports through openings in the housing walls, as characterized the prior devices.

It will be understood while the features of the invention have been described specifically with respect to a floodlight, they may find application to other types of devices.

While the present invention has been described with reference to particular embodiments thereof, it will be understood that numerous modifications may be made by those skilled in the art without actually departing from the scope of the invention. Therefore, the appended claims are intended to cover all such equivalent variations as come within the true spirit and scope of the invention.

What we claim as new and desire to secure by Letters Patent of the United States is:

1. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, lamp socket means mounted on the walls of said housing in said chamber, a concave reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, cover means including a transparent window pane closing said front window opening of said housing, generally U-shaped hinge means having an intermediate portion pivotally connected to said housing and a pair of spaced arm portions pivotally connected at the free ends thereof to opposite sides of said cover means for movement of said cover means entirely away from said front window opening to a position spaced a substantial distance therefrom to provide unimpeded access to said interior housing chamber.

2. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, lamp socket means mounted on the walls of said housing in said chamber, a reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, cover means for closing said front window opening of said housing, said cover means comprising a frame defining an opening and having a rear surface surrounding the frame opening, a transparent window pane larger than said frame opening arranged adjacent said rear surface, mounting means securing said window pane on the rear side of said frame in spaced relation to said rear surface thereof and providing a drain opening therebetween, and means for removably securing said cover means to said housing.

3. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, lamp socket means mounted on the walls of said housing in said chamber, a reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, cover means for closing said front window opening of said housing, said cover means comprising a frame defining an opening and having a rear surface surrounding the frame opening, a transparent window pane larger than said frame opening arranged adjacent said rear surface, mounting means securing said window pane on the rear side of said frame in spaced relation to said rear surface thereof, and providing a drain opening therebetween, said mounting means comprising circumferentially spaced resilient bearing members on said rear frame surface for holding said window pane spaced from said frame surface, and spaced resilient clip members mounted on said frame for holding said window pane against said resilient bearing members, and means for removably securing said cover means to said housing.

4. A closure device comprising a frame defining an opening and having a rear surface surrounding the frame opening, a transparent window pane larger than said frame opening arranged adjacent said rear frame surface, mouting means securing said window pane on the rear side of said frame in spaced relation to said rear surface thereof and providing a drain opening therebetween, said mounting means securing said window pane on the rear silient bearing members on said rear frame surface for holding said window panes spaced from said frame surface, and spaced resilient clip members mounted on said frame for holding said window pane against said resilient bearing members.

5. A window mounting arrangement comprising, in combination, a frame having a circumferential rim defining a window opening, spaced bearing members on said rim, a window pane covering said opening and resting against said bearing members, and spaced resilient clip members on said rim urging said window pane into engagement with said spaced bearing members, each clip member being formed of a wire bent into U-shape such that the base portion of the U is in a first plane, the legs of the U are

bent intermediate their length so that parallel portions thereof extend in a second plane at an angle to said first plane, and the free ends of said legs are bent on themselves to form a spring loop with the portions of said legs in said second plane, said frame rim having spaced pairs of recesses, said clip members being inserted with their looped spring leg portions into said paired recesses in resilient engagement therein and the base portions of said clip members overlying said window pane.

6. A floodlight comprising, in combination, a generally rectangular housing having walls defining an interior chamber and a front window opening, the walls in the interior chamber at opposite ends thereof being formed with bosses defining socket receiving recesses, lamp socket means located in each of said socket receiving recesses, the rear exterior surface of said housing being formed with a support boss having an aperture opening into said interior chamber, said rear exterior surface of said housing being formed with cooling fins projecting therefrom, hollow support means exteriorly adjacent the rear of said housing for supporting the same, means connecting said hollow support means to said housing while providing an air space therebetween for passage of cooling air therebetween, and elongated conducting leads connected to each said lamp socket means and passing exteriorly of said housing through said aperture and said hollow support means.

7. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, lamp socket means mounted on the walls of said housing in said chamber, a reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, cover means for closing said front window opening of said housing, said cover means comprising a frame defining an opening and having a rim surrounding the frame opening, the rim of said frame having a rearwardly directed lip extending therealong, a transparent window pane larger than said frame opening arranged adjacent said frame rim, mounting means securing said window pane on the rear side of said frame in spaced relation to said rim thereof, hinge means removably securing said cover means including said frame to said housing for movement of said cover means entirely away from said front window opening, and visor means extending forwardly from said frame and and having an elongated lip portion inserted between the rim of said frame and said window pane and engaging said frame in spaced relation to said rim thereof, hinge in position on said frame.

8. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, said housing having a flange surrounding said opening, said flange being formed with first combined stop and fastening means, lamp socket means mounted on the walls of said housing in said chamber, a concave reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, resilient gasket means surrounding said reflector along the outer edge thereof, and cover means including a frame and a window pane mounted therein closing said front window opening, said frame being formed with second combined stop and fastening means coacting with said first combined stop and fastening means for securing said cover means to said housing while limiting the compression of said gasket therebetween.

9. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, said housing having a flange surrounding said opening, said flange being formed with a plurality of first combined stop and fastening means, lamp socket means mounted on the walls of said housing in said chamber, a concave reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, resilient gasket means surrounding said reflector along the outer edge thereof, and cover means including a frame and a window pane mounted therein closing said front window opening, said frame being formed with a plurality of second combined stop and fastening means coacting with said first combined stop and fastening means for securing said cover means to said housing while limiting the compression of said gasket therebetween, each said first combined stop and fastening means comprising a hollow threaded boss projecting forwardly from said housing flange, and each said second combined stop and fastening means comprising a tubular boss having a screw held captive therein.

10. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, said housing having a flange surrounding said opening and having formed therein a continuous groove extending around said window opening, said flange being formed with a plurality of first combined stop and fastening means, lamp socket means mounted on the walls of said housing in said chamber, a concave reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, resilient gasket means surrounding said reflector along the outer edge thereof and seated in said continuous groove in said housing flange, and cover means including a frame and a window pane mounted therein closing said front window opening, said frame being formed with a plurality of second combined stop and fastening means coacting with said first combined stop and fastening means for securing said cover means to said housing while limiting the compression of said gasket therebetween.

11. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, said housing having a flange surrounding said opening and having formed therein a continuous groove extending around said window opening, said flange being formed with a plurality of first combined stop and fastening means, lamp socket means mounted on the walls of said housing in said chamber, a concave reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, resilient gasket means surrounding said reflector along the outer edge thereof and seated in said continuous groove in said housing flange, and cover means including a frame and a window pane mounted therein closing said front window opening, said frame being formed with a plurality of second combined stop and fastening means coacting with said first combined stop and fastening means for securing said cover means to said housing while limiting the compression of said gasket therebetween, each said first combined stop and fastening means comprising a hollow threaded boss projecting forwardly from said housing flange, and each said second combined stop and fastening means comprising a tubular boss having a screw held captive therein.

12. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, said housing having a flange surrounding said opening, said flange being formed with a plurality of first combined stop and fastening means, lamp socket means mounted on the walls of said housing in said chamber, a concave reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, resilient gasket means surrounding said reflector along the outer edge thereof, and cover means including a frame and a window pane mounted therein closing said front window opening, mounting means securing said window pane on the rear side of said frame in spaced relation to said rear surface thereof, said mounting means comprising spaced resilient bearing members on said rear frame surface for holding said window pane spaced from said frame surface, and spaced resilient clip members mounted on said frame for holding said window pane against said resilient bearing members, said frame being formed with a plurality of

second combined stop and fastening means coacting with said first stop and fastening means for securing said cover means to said housing while limiting the compression of said gasket therebetween.

13. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a front window opening, said housing having a flange surrounding said opening, said flange being formed with a plurality of first combined stop and fastening means, lamp socket means mounted on the walls of said housing in said chamber, a concave reflector fitting within said interior housing chamber and having at least one opening adjacent said lamp socket means, resilient gasket means surrounding said reflector along the outer edge thereof, cover means including a frame and a window pane mounted therein closing said front window opening, said frame being formed with a plurality of second combined stop and fastening means coacting with said first combined stop and fastening means for securing said cover means to said housing while limiting the compression of said gasket therebetween, and hinge means swingably connecting said cover means to said housing comprising a generally U-shaped wire having an intermediate portion pivotally connected to said housing and a pair of spaced arm portions pivotally connected at the free ends thereof to opposite sides of said cover means for movement of said cover means entirely away from said front window opening to a position spaced a substantial distance therefrom to provide unimpeded access to said interior housing chamber.

14. A floodlight comprising, in combination, a housing having a rear wall including an outer support surface and exterior support means for supporting said housing comprising a connecting member secured to said housing at said support surface thereof, said connecting member being spaced from said housing support surface by a plurality of spaced projecting members arranged therebetween for providing an air space therebetween open to the atmosphere, whereby only limited heat conducting contact is provided between said housing and said exterior support means and a passage for cooling air is provided therebetween.

15. A floodlight comprising, in combination, a housing having a rear wall including an outer support surface and exterior support means for supporting said housing comprising a connecting member secured to said housing at said support surface thereof, said connecting member

being formed with a plurality of spaced projecting members engaging said housing support surface so as to space said connecting member from said housing support surface for providing an air space therebetween open to the atmosphere, whereby only limited heat conducting contact is provided between said housing and said exterior support means and a passage for cooling air is provided therebetween.

16. A floodlight comprising, in combination, a housing having walls defining an interior chamber and a window opening, a pair of lamp-receiving sockets mounted on the walls of said housing spaced from each other in said chamber, and a concave reflector fitting within said chamber and having openings adjacent said sockets for receiving the ends of an elongated lamp adapted to be connected to said sockets, said sockets being spaced wholly to the rear of said reflector at said openings thereof, whereby said sockets and the lamp ends adapted to be associated therewith are substantially protected from heat developed on the front side of said reflector during operation of the floodlight.

17. A floodlight as defined in claim 16, wherein said reflector is bent inwardly in the region of said openings and adjacent said sockets.

18. A floodlight as defined in claim 16, wherein said sockets are seated in recesses formed in said housing walls, resilient means arranged in said recesses engaging said sockets urging them respectively toward each other, and cover means covering said recesses for retaining said sockets and said resilient means therein.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,377,473 April 9, 1968

Harold A. Breeding et al.

It is certified that error appears in the above identified patent and that said Letters Patent are hereby corrected as shown below:

Column 2, line 1, "conecting" should read -- connecting --; line 38, "construction" should read -- constructed --. Column 4, line 75, "toother" should read -- toothed --. Column 6, line 61, cancel "mounting means securing said window pane on the rear" and insert -- mounting means comprising circumferentially spaced re- --. Column 7, line 48, cancel "said frame in spaced relation to said rim thereof, hinge" and insert -- said lip of said frame rim for retaining said visor means --.

Signed and sealed this 23rd day of September 1969.

(SEAL)
Attest:

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Attesting Officer

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Commissioner of Patents