

Jan. 23, 1968

E. W. HANSEN

3,365,570

LAMP FIXTURE OF THE REMOVABLE GLASS PANE TYPE

Filed April 7, 1965

FIG. 1

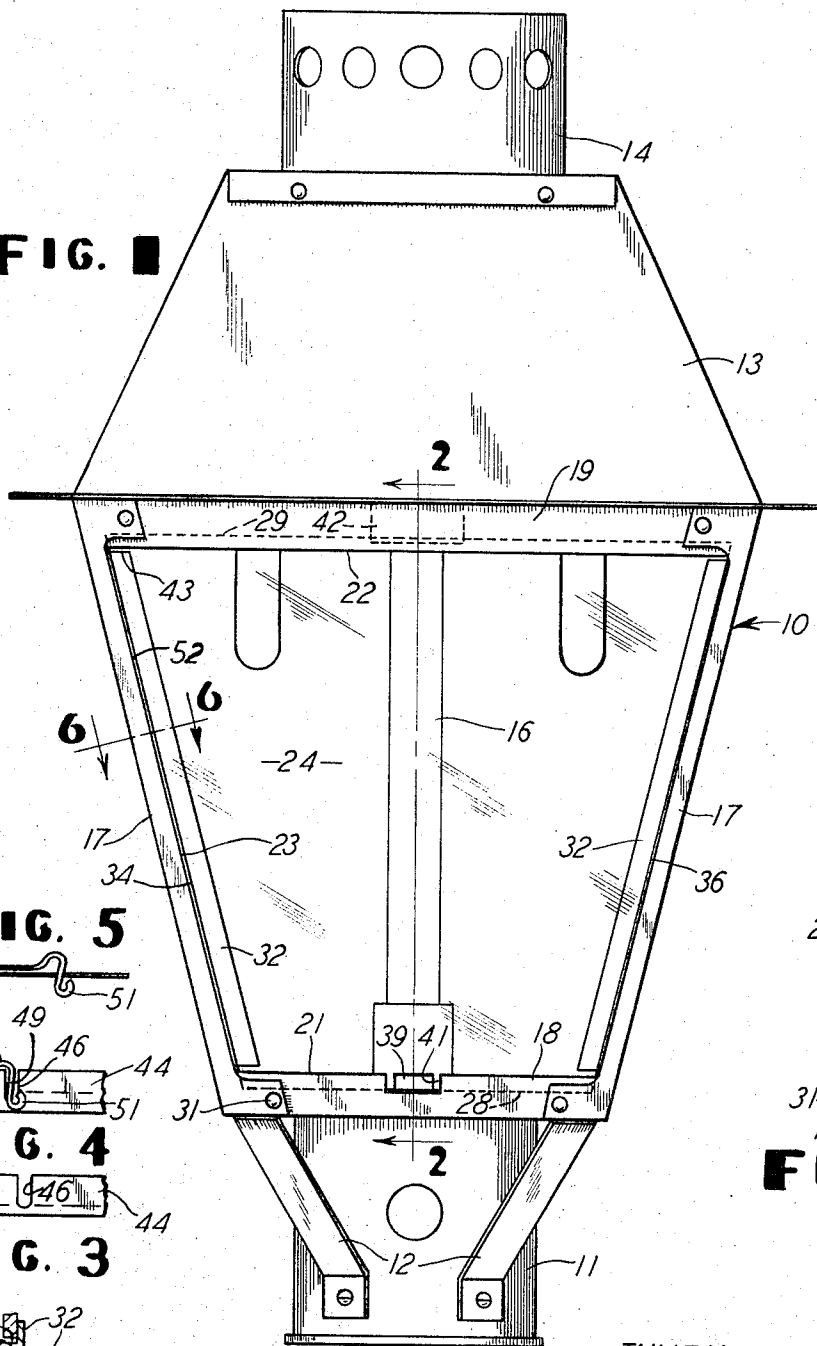


FIG. 5

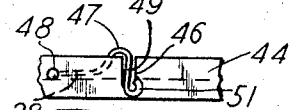
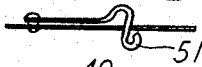


FIG. 4

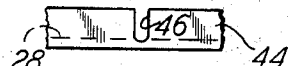


FIG. 3

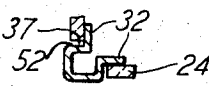
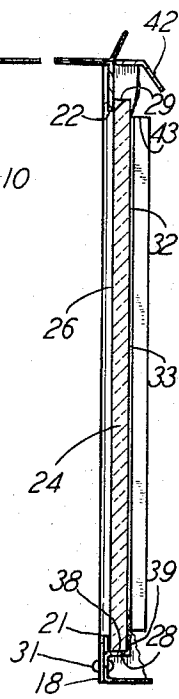


FIG. 6

FIG. 2



INVENTOR:

EDWARD W. HANSEN

BY: *Arthur J. Hanson*
ATTORNEY

1

3,365,570

LAMP FIXTURE OF THE REMOVABLE GLASS PANE TYPE

Edward W. Hansen, Racine, Wis., assignor to Charm-glow Manufacturing Co., Antioch, Ill., a corporation of Illinois

Filed Apr. 7, 1965, Ser. No. 446,271

3 Claims. (Cl. 240—11)

ABSTRACT OF THE DISCLOSURE

A lamp assembly wherein a panel can be inserted and removed without fastening means or removal of any parts or the top of the assembly, and without lateral grooves. A frame is provided with a top lip, offset lateral lips and a base for freely supporting a panel and retaining same. Means are disposed on the frame and in engagement with a bottom portion of the panel for lifting the panel out of the frame.

This invention relates to a light fixture, and more particularly it relates to a light fixture of the outdoor type, such as the present-day yard lamp.

Light fixtures are commonly known to be used for housing a source of light, either an electric lamp or gas lamp for instance, and they utilize a supporting frame and glass for enclosing the source of light. The panes of glass must be cleaned occasionally, especially where they are utilized in outdoor fixtures, and where they are used as in gas lamps. Also, occasionally the light source itself must be serviced either by replacing parts or cleaning, and here again the glass enclosure is of concern in that it of course precludes access to the interior of the fixture.

Some fixtures are provided with access doors in an effort to permit cleaning of the glass and servicing of the interior of the fixture. However, even with the provision of a door, the problem of complete access to the interior for either glass cleaning or fixture servicing with respect to the light source is still a problem. Still further, some heretofore known fixtures provide means for removing the glass from the frame so that the glass of course can either be cleaned away from the fixture or the light source and other interior parts of the fixture can be serviced. However, these structures with removable glass have not been the answer to the problems, and they have therefore not met with success.

It is a general object of this invention to overcome the aforementioned problems and to do so by providing a means for removably mounting the pane of glass on the fixture frame.

Other objects of this invention include the provision of a fixture with removable glass such that when the glass is in its normal position on the fixture frame it is providing a tight enclosure with the frame so that water, dust, wind, and like elements cannot enter the fixture. Of course upon removing the glass from the frame, the glass can be cleaned, the interior of the fixture can be serviced, or of course the glass could be readily replaced if it be broken, and in the replacement there need not be any complication or skill required in placing the new glass into the frame.

Still another object of this invention is to provide a light fixture with a removable glass pane which does not require any clamping or retaining means for securing the glass to the fixture frame, and thus, insertion and removal of the glass is a simple process, but the glass is nevertheless weather tight with respect to the frame and is fully functional and also decorative in that it is recessed without any projecting parts.

2

Another specific object of this invention is to provide a light fixture of the type useful out-of-doors in gas lamps or the like, and wherein the pane of glass on each side of the fixture is removably mounted thereon, but which is nevertheless tight with the fixture frame so that bugs cannot get into the fixture.

Other objects and advantages will become apparent upon reading the following disclosure in light of the accompanying drawings, wherein:

FIG. 1 is a side elevational view of a preferred embodiment of this invention.

FIG. 2 is a sectional view taken on the line 2—2 of FIG. 1.

FIG. 3 is a view of a fragment of a base useful in the fixture in FIG. 1, but showing another embodiment thereof.

FIG. 4 is a view of a fragment of a base similar to FIG. 3 but showing still another embodiment thereof.

FIG. 5 is a top plan view of FIG. 4.

FIG. 6 is a sectional view taken on the line 6—6 of FIG. 1.

FIG. 1 shows one side of a light fixture incorporating one embodiment of this invention, and it will of course be understood that there are three other sides of the fixture which are not shown but which would be identical to the side shown in FIG. 1. The fixture of course is particularly useful in a yard lamp, and is shown to be of the gas fixture type, but it of course may also be used in the electric lamp type.

The fixture consists of a frame generally designated 10 and having a base 11 for mounting on a post (not shown) to be supported in the upright position shown. Braces 12 are shown to be connected to the base 11 and extend up to the frame 10 to stabilize the latter which is mounted on the base 11 also, in any conventional manner. A top 13 is connected to the upper end of the base 10 and extends thereabove to provide a stack 14 for the exhaust necessary in the use of the fixture as a gas lamp. A hood (not shown) would of course also be provided on the top 14 to complete the fixture. A gas burning unit generally designated 16 is shown disposed within the frame 10, and this may be of any conventional nature, or it could of course also be replaced by an electric lamp so that either light source can be utilized in this construction or within scope of this invention.

The frame 10 includes the two opposite sides or corner pieces 17 and the bottom piece 18 and the top piece 19. FIGS. 1 and 2 show that the bottom 18 and top 19 include lips or flanges 21 and 22 respectively, and the frame pieces 17, 18, and 19, define an opening indicated 23 which receives and accommodates a pane of glass 24. FIGS. 1 and 2 thus show that the frame lips 21 and 22 extend over the front face 26 of the glass 24, and this front face is the outer surface or face of the glass. Also, the bottom edge 28 and the top edge 29 of the glass 24 overlap with the lips 21 and 22 respectively.

It will also be noted that the opening 23, and thus the glass 24 which is snug with respect to the opening 23, is of an isosceles trapezoid shape, with the smaller dimension being at the bottom for a purpose mentioned later.

The frame sides 17 are secured to the bottom 18 and top 19 by means of rivets 31 at the corners of the frames. The material throughout the frame is preferably of a sheet metal type, and thus the pieces can be readily bent into the shapes shown, and they are also somewhat flexible for the snug reception of the glass 24. The sides or corners 17 have two lips or projections 32 extending toward the interior of the fixture, and these lips 32 are shown also in FIG. 6. FIG. 2 shows that the lips 32 are disposed in abutment with the rear surface 33 of the glass 24, and the lips 32 are thus snug with the glass 24 and

3

overlap the opposite side edges 34 and 36 of the glass 24. Still further, the corner pieces 17 are formed to provide recesses 37 for snugly receiving the edges of the glass 24 and to have the glass 24 recessed with respect to the frame so that the raw edges 34 and 36 of the glass 24 are not exposed. This provides for snug fitting as well as other functional and decorative purposes. FIG. 2 shows the section in the upright position, but it does show the glass 24 flanked along its opposite faces 26 and 33 by the lips 21 and 22 on the outer face and the lips 32 on the inner face of the glass 24. The glass is therefore weather tight and bug proof tight with respect to the frame 10.

A lower support or stop 38 is formed in the bottom 18 to provide a rest or support for the glass 24 and retain it in a vertically selected and set position. A tab or lip 39 also extends rearwardly of the glass 24 to provide a support at the rear surface 33 of the glass at its bottom edge 28. The support 38 and lip or stop 39 may simply be pressed in the sheet metal piece forming the bottom 18, and this then leaves the opening 41 in the lip 21 of the bottom. The opening 41 is now available for one to insert a finger or other object to raise the glass 24 and remove it from the frame 10 as described hereinafter.

It will be noted that the glass top edge 29 is clear of any parts directly above it, and thus the glass can be slid upwardly from the position shown. Once it is moved up to where it will clear the bottom lip 21, the glass is free to be tipped outwardly at its bottom edge 28, and the top edge 29 might then engage a support 42 affixed to the frame 10 shown in FIGS. 1 and 2. The side lips 32 will also be supporting the glass at their top edges 43 when the glass is tipped outwardly at the bottom as described. Thus it will be noted that the top lip 22 and the upper edges 43 of the sides 32 are spaced apart a distance sufficient to receive the thickness of the glass 24 in the tipped position just described. The glass could then be completely removed from the frame 10 by withdrawing it toward its bottom edge 28. Reversal of the procedure will permit the glass to be readily inserted. That is, the top edge 29 would be inserted by sliding the glass between the edges 43 and the lip 22 and move the glass upwardly to where the bottom edge 28 will clear the bottom lip 21. The glass can then be moved into the opening 23 and against the lips 32 and slid downwardly until the edge 28 rests on the stop 38, in the position shown in the drawing.

In the FIG. 1 embodiment, the opening 41 is wide enough to accommodate a person's finger for raising the glass 24 as described. However, in the FIG. 3 embodiment, the bottom lip 44, which is comparable to the lip 21, has a narrower opening 46, and this opening will accommodate a nail or pin or other narrow object to permit the object to be slid under the glass lower edge 28 to raise the glass. In FIG. 3, the glass lower edge is shown as 28 also.

FIG. 4 has a bottom piece similar to that of FIG. 3 in that it has the lip 44 and the opening 46, but here it has a movable stop or lever 47 which is pivotally mounted on a rivet 48 on the lip 44. The lever 47 has an angled section 49 extending across the opening 46 from the interior of the fixture to the exterior thereof so that the end 51 is projecting to the outside of the opening 46, as shown in FIG. 5. Here the glass lower edge 28 would rest on the lever straight portion 49, which tips downwardly to the outside, so that upon placing the finger under the end 51 and pivoting the lever 47 upwardly, the glass resting on the portion 49 would automatically be raised and slid out of the frame 10 as desired.

Thus the frame lips 21 and 22, including the side lips 32 are spaced apart a distance sufficient to accommodate the thickness of the glass 24 and thereby hold the glass snugly. That is, the lips at the top and the bottom are in one plane while the lips at the sides are in a plane offset from the first plane. Also, with the use of the trapezoidal shape, the glass 24 will move downwardly to the stop 38 and it will thus be spaced from the side surfaces 52, but

4

yet the glass will not wedge in so tightly that it cannot be removed in any of the manners heretofore described.

While several embodiments of this invention have been shown and described, it should be obvious that certain changes could be made in the invention which should be determined only by the scope of the appended claims.

What is claimed is:

1. A lamp assembly comprising a frame, a panel removably disposed in said frame, said frame comprising a top member having a lip presenting an inner surface for contact with an upper portion of said panel, a base portion in said frame supporting the base of said panel, means integral with said base to prevent the base of said panel from moving horizontally off the base portion of said frame, substantially vertically disposed spaced side members extending between said top member and said base member, said side members presenting opposing lateral faces for accommodating said panel and preventing movement therebetween, laterally extending lip members integral with each side member and disposed in the same vertical plane inwardly of said lateral faces to freely permit insertion and removal of the top portion of said panel between said inner surface and said lips at the top of said frame, said inner surface of said top member and said means in said base portion being the sole retentive means for preventing movement of said panel outwardly from said lamp assembly, said inner surface and said lateral lip members adapted to allow a portion of said panel to pass upwardly therebetween sufficient to permit the panel to be in substantial vertical alignment therewith for subsequent retention by said integral means in said base portion, said panel constructed and arranged to engage the inner surface of said top member in one instance and a portion of said lateral lip member in another instance when said panel rests by its own weight on said base portion and lifting means movably mounted on said frame to engage a bottom portion of said panel to lift said panel out of said frame.

2. A lamp assembly comprising a frame and a glass panel adapted to be removably disposed in said frame, said frame comprising a top and a bottom and opposite sides all spaced apart defining an opening for accommodating said panel, said top and said bottom each having a lip extending in a common plane over respective adjacent edges of said glass panel on one face of said glass panel, the inner adjacent surfaces of said top and bottom lips and said hereinafter defined combined supporting and lifting means being the sole retentive means for preventing movement of said panel outwardly from said frame, said opposite sides of said frame having lips extending inwardly on said opening and disposed in a plane offset from said common plane of said top and said bottom lips and extending over the side edges of said panel on the other face of the panel, said top lip and the upper edges of said side lips being spaced apart for receiving the thickness of said panel therebetween when said glass pane is tipped in said opening in the insertion and removal of said panel and combined supporting and lifting means movably mounted on said frame for engaging a bottom edge of said panel to lift said panel out of said opening.

3. A lamp fixture of the removable glass pane type, comprising a frame having a top and a bottom and opposite sides all spaced apart and defining an opening, a glass pane removably disposed on said frame in said opening, said top and said bottom each having a lip extending in a common plane over the respective adjacent edges of said glass pane on one face of said glass pane, said opposite sides of said frame having lips extending inwardly on said opening and disposed in a plane offset from said common plane of said top and said bottom lips and extending over the side edges of said glass pane on the other face of said glass pane, said top lip and the upper edges of said side lips being spaced apart for receiving the thickness of said glass pane therebetween when said glass pane is tipped in said opening in the insertion and removal of said glass

pane, said bottom lip having an opening extending there-
through, and a lever pivotally mounted on said bottom
lip and including a portion extending across said bottom
edge of said glass pane and through said opening in said
bottom lip for raising said glass pane out of said opening
in said frame upon upward pivoting of said lever. 5

References Cited

UNITED STATES PATENTS

165,361 7/1875 Norris ----- 240—25

1,781,020	11/1930	Leahy et al. -----	40—131
1,961,584	6/1934	Hathorn -----	49—463
2,570,714	10/1951	Robinson -----	49—463

FOREIGN PATENTS

2,681 3/1902 Great Britain.

NORTON ANSHER, *Primary Examiner.*

C. C. LOGAN, J. F. PETERS, *Assistant Examiners.*