July 28, 1942. G. W. BEALS 2,291,495

LIGHTING FIXTURE

Filed Feb. 21, 1941 2 Sheets-Sheet 1

Fig. 1.

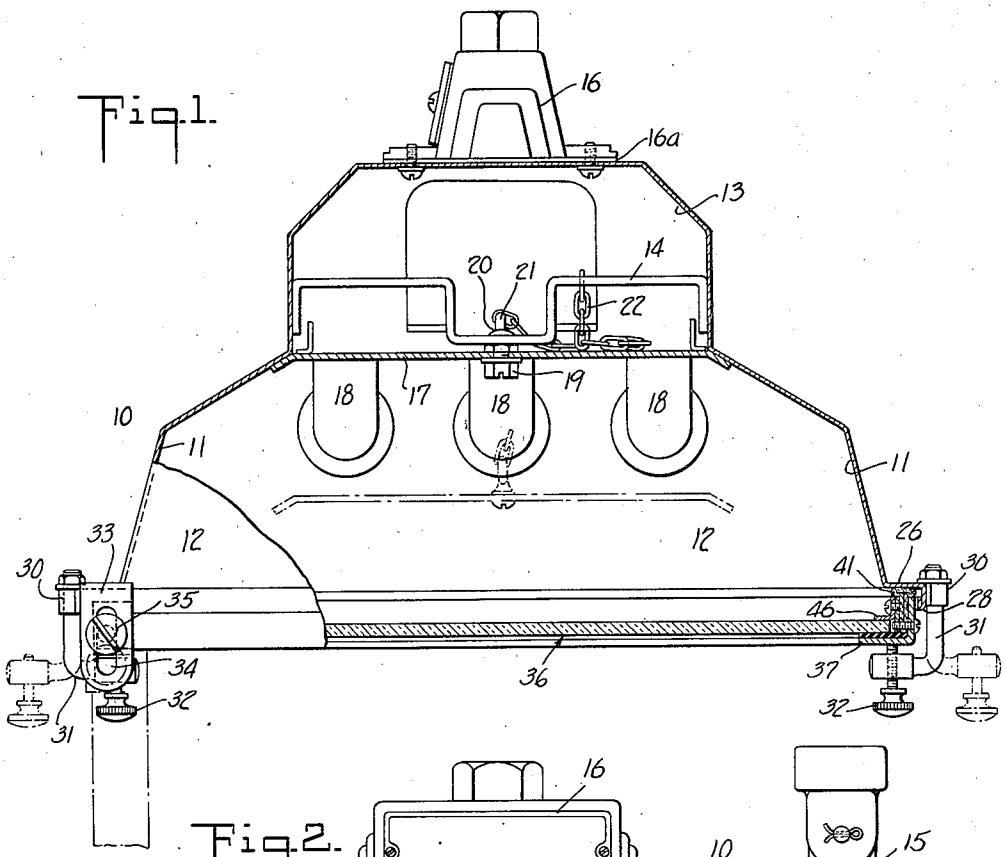
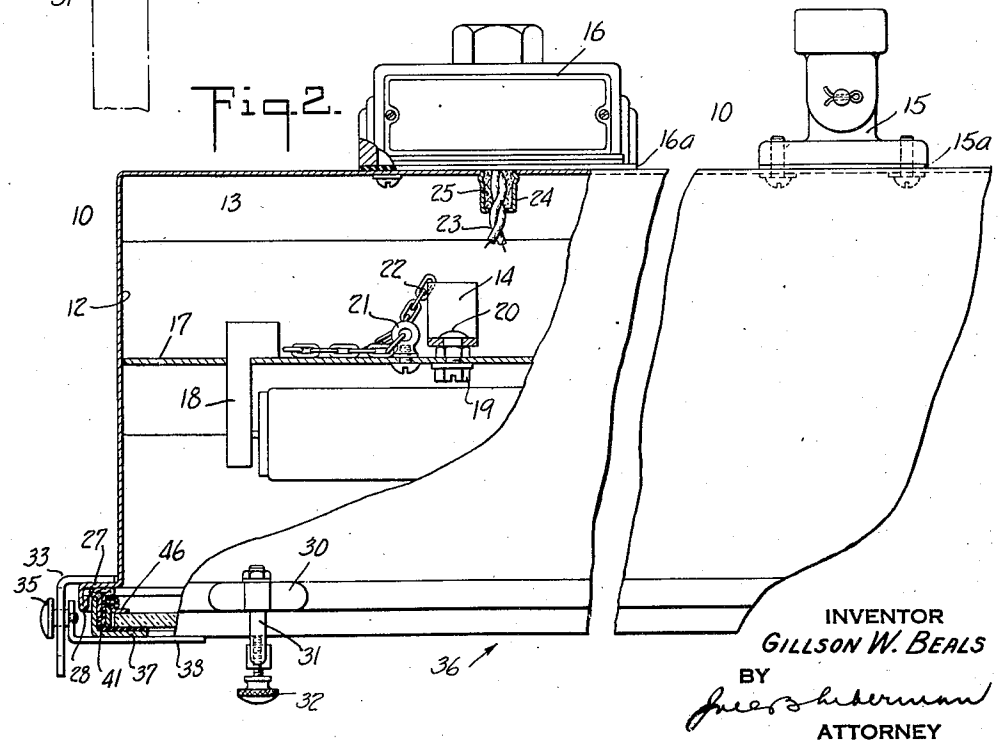



Fig. 2.




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Fig. 3.

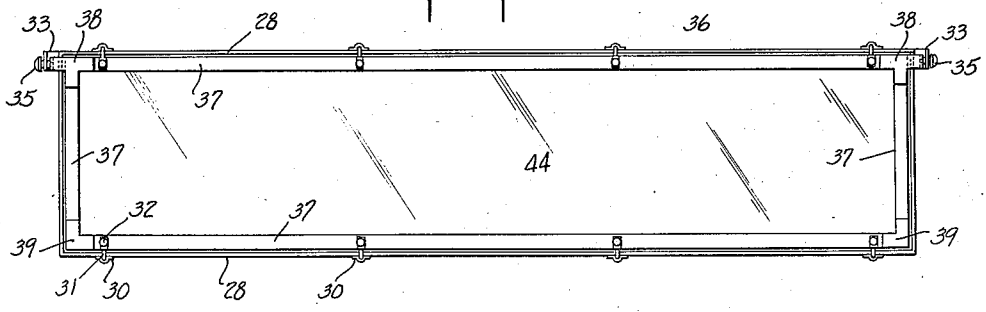



Fig. 4.

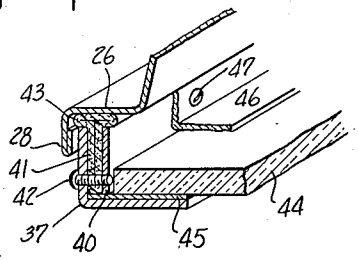



Fig. 5.

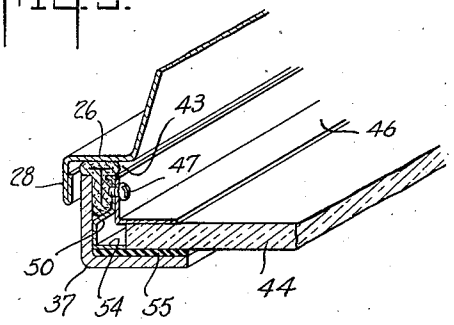
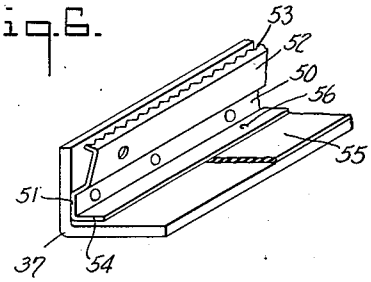



Fig. 6.




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Patented July 28, 1942

2,291,495

# UNITED STATES PATENT OFFICE

2,291,495

## LIGHTING FIXTURE

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Application February 21, 1941, Serial No. 379,917

7 Claims. (Cl. 240—78)

The present invention relates to lighting fixtures, and is more particularly directed toward direct lighting fixtures of the vapor proof dust tight type.

The present invention contemplates vapor proof dust tight lighting fixtures of the type employing long metallic rectangular reflectors and having dust tight closures.

According to the present invention the closure employed utilizes a rigid metal frame carrying a light transmitting panel, and this frame is provided with gasket material in the form of woven material such as a length of asbestos tubing secured to the frame members and projecting beyond them so that it can be pressed against the margin of the reflector.

The present invention also contemplates improved hinging, supporting and clamping mechanism for the closure.

The accompanying drawings show, for purposes of illustrating the present invention, an embodiment in which the invention may take form, together with modifications of certain parts, it being understood that the drawings are illustrative of the invention rather than limiting the same.

In these drawings:

Figure 1 is a transverse sectional view through a lighting fixture showing the closure in closed position, parts being shown in elevation and parts in dotted lines to indicate the open position of the closure;

Figure 2 is a side elevational view of the fixture with parts in section;

Figure 3 is an inverted plan view of the fixture;

Figure 4 is a fragmentary sectional view through the fixture enclosure;

Figure 5 is a view similar to Figure 4 showing a modified form of construction; and

Figure 6 is a perspective view of the frame of Figure 5 before the gasket material is inserted.

The fixture indicated in the drawings has a body 10 preferably made out of a single sheet metal stamping. The body has long side walls 11, 11 and ends 12 preferably enamelled for light reflection. The central part of the body is raised, as indicated at 13, and is provided with stiffening straps 14. It is secured to supports 15 and a conduit fitting 16, gaskets 15a and 16a being provided to make the connections vapor tight. The raised portion 13 forming a wireway is closed off by a plate 17 carrying fluorescent lamp sockets 18 and this plate is secured in place by nuts 19 threaded on to bolts 20 carried by the straps 14. Loops 21 and chains 22 are provided so that the plate 17 may be lowered to the dot-and-dash line position of Figure 1 and held there during wiring operations. The supply wires 23 are passed down through cups 24 filled with pitch or other equivalent material indicated at 25.

The lower part of the body stamping 10 has flat peripheral margin portions indicated at 26 and 27, and these are surrounded by stiffening beads indicated at 28. Anchorages 30 are welded to the beaded edges of the reflector, as indicated in the drawings, and these anchorages or lugs receive angle rods 31 which extend below the mouth of the reflector and may be adjusted to the inner position indicated in full lines of Figure 1, or to the outer position indicated in dot-and-dash lines. These lugs are provided with thumb screws 32 as shown. The stamping 10 also carries two downwardly extending lugs 33 longitudinally slotted as indicated at 34. These slots receive pins 35 employed for hingedly supporting the closure indicated generally at 36. This closure has side and end frame members, indicated at 37, of angle-shaped cross section and of such a size as to pass inside the beads 28 of the reflector stamping. The frame is reinforced at the corners by corner straps 38, 38 secured to the pins 35 and by plain corner straps 39, 39 opposite the hinge.

In the form of construction illustrated in Figures 1 to 4, inclusive, the closure frame carries a sheet metal strip 40 spaced from the vertical wall of the frame to partially receive a length of woven asbestos tubing indicated at 41. The tubing is clamped in place by screws 42 threaded into the strip 40. A portion of this tubing extends beyond the closure frame and is exposed as indicated at 43. The closure plate 44 made of glass or similar material is held between a strip of sheet gasket material 45 and an angle indicated at 46, the angle being secured in place by screws 47 threaded into the strip 40. When the closure is in the position indicated in Figures 1, 2 and 4 the exposed flattened portion 43 of the asbestoc wicking is pressed against the marginal portions 26 and 27 of the reflector and is held tightly against them by the screws 32. Releasing the screws and swinging the angle members to the dot-and-dash line position permits swinging the closure down, as will be obvious.

In the form of construction indicated in Figures 5 and 6 the angle strips 37 forming the frame are welded to thin sheet metal strips indicated at 50. These strips have a portion 51 welded to

the angle 37, and a portion 52 which is spaced from the opposed wall of the angle strip 52, this portion 52 being provided with inwardly bent serrations 53. In making this type of closure the flattened wicking 43 is inserted behind the serrations and they are pressed down into the wicking so as to securely hold it all along its length. The closure plate 44, angle 46 and screw 47 may be the same as described above. The strip 51 also has a flange 54 spaced slightly above the flat face of the angle pieces 37 and a piece of sheet gasket material 55 (for the same purposes as gasket 45) is inserted in the space and held down by punchings 56 formed in the flange 54 of the sheet metal strip 51. A strip of doubled asbestos fabric could be used, if desired.

It is apparent that, within the scope of the invention, modifications and different arrangements may be made other than is herein disclosed, and the present disclosure is illustrative merely, the invention comprehending all variations thereof.

What is claimed is:

1. A lighting fixture having an open mouthed reflector with an outwardly facing flat margin surrounded by a peripheral bead, a light transmitting closure comprising a transparent panel, a peripheral frame about the panel and having flanges receivable within the bead, clamp plates extending lengthwise of the flanges, a gasket laterally flattened against the flanges and secured between the flanges and plates and having a portion extending beyond the edges of the flanges and plates where it may engage the reflector margin and flatten out against the face thereof, and clamping means for securing the closure frame to the reflector and pressing the gasket against the margin of the reflector to form a vapor proof joint.

2. A closure for lighting fixtures comprising a frame of angular cross section, a light transmitting panel secured to one face of the frame, a strip secured along the other face of the frame and having a serrated edge spaced therefrom, and a flattened gasket partly received between said other face of the frame and the strip and partly extending beyond the free edge of the frame.

3. In a closure for lighting fixtures a frame formed of angle-shaped metal strips, a metal strip secured along a face of each of the frame strips and having a serrated edge spaced therefrom, a flattened gasket partly received between the opposed strips and partly exposed beyond the edges of said strips, a strip of sheet gasket material secured along the other face of each frame strip, and a light transmitting panel secured against the strip of gasket material.

4. In a closure for lighting fixtures, a substantially rigid frame member of angle cross section, a thin sheet metal strip having a portion lying against the inner face of one side of the frame member and welded thereto, and a portion spaced from said face and having a serrated edge facing the frame member, and a doubled piece of woven asbestos partly received between the frame member and the spaced portion of the strip, the serrated edge being forced into the woven asbestos to hold it in place.

5. A closure such as claimed in claim 4, wherein the strip has a third portion parallel to and spaced from the other face of the angle, and a strip of gasket material inserted into said space and secured there by deformations punched into the strip.

6. A closure for lighting fixtures comprising a frame comprising angle-shaped strips of sheet metal, thin sheet metal strips secured to the inner side faces of the frame forming strips and having serrated edges spaced therefrom, a doubled strip of woven gasket material partly received between the frame forming strips and the serrated edges of the thin strips and partly extending beyond the edges of the frame forming strips, a panel of light transmitting material fitting the frame, gasket material between the edges of the panel and the other faces of the angle-shaped strips, and panel securing strips detachably carried by the said thin strips.

7. In a lighting fixture, a downwardly opening reflector with parallel sides and ends, a pair of vertically slotted, pendant lugs carried by the reflector opposite two corners of the reflector, a rectangular closure having a frame fitting the reflector mouth and a light transmitting panel carried by the frame, extensions carried by the frame opposite the lugs and carrying pivot pins extending through the slots in the lugs, gasket material between the frame and reflector, and clamping devices disposed about the periphery of the reflector for clamping the frame in place to compress the gasket material, said devices each including a bearing sleeve member attached outside the mouth of the reflector and an angle member having one end pivotally secured to the bearing sleeve to swing about the axis of the sleeve to place the lower horizontal end thereof under the frame or clear of it, and a screw carried by the lower end of the angle member and adapted to bear against the frame when the angle member is in the inner position.

GILLSON W. BEALS.