Sept. 4, 1951 B. D. LEVAUR ET AL 2,566,845

LUMINAIRE HAVING END MEMBERS AND QUICKLY DETACHABLE SIDE PANELS

Filed Sept. 8, 1949 2 Sheets-Sheet 1

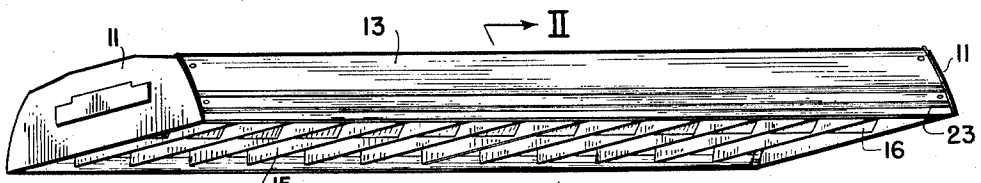


Fig. 1

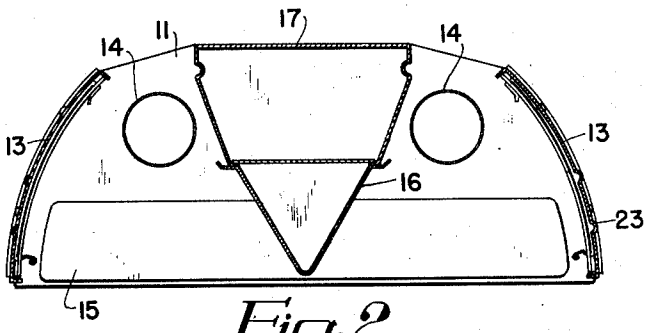


Fig. 2

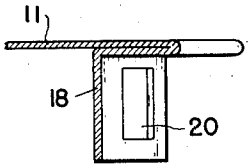


Fig. 5

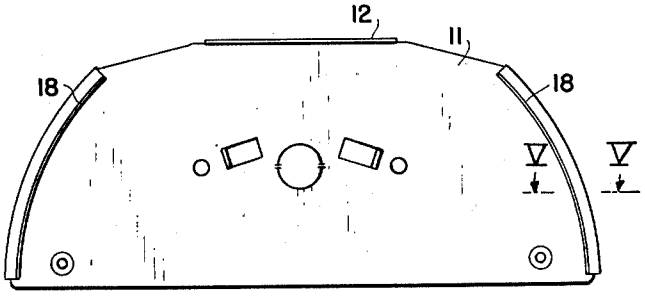


Fig. 3

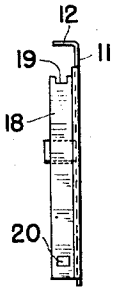


Fig. 4

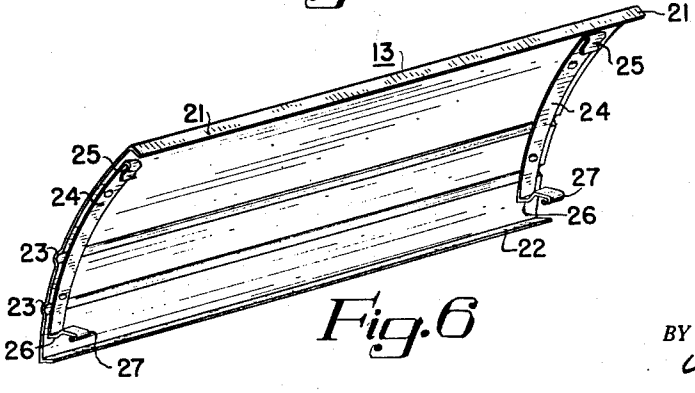


Fig. 6

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LUMINAIRE HAVING END MEMBERS AND QUICKLY DETACHABLE SIDE PANELS

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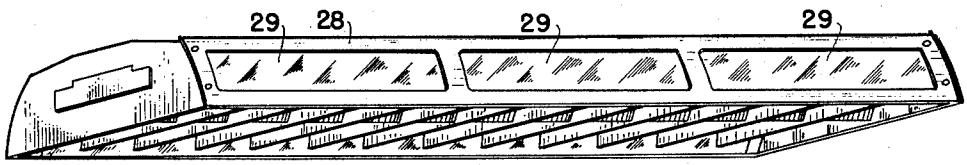


Fig. 10

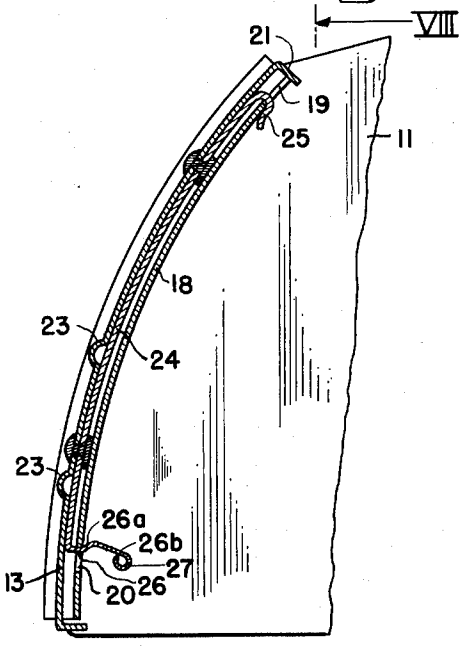


Fig. 7

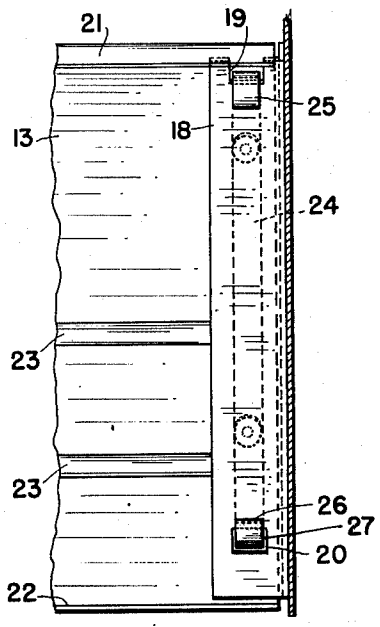


Fig. 8

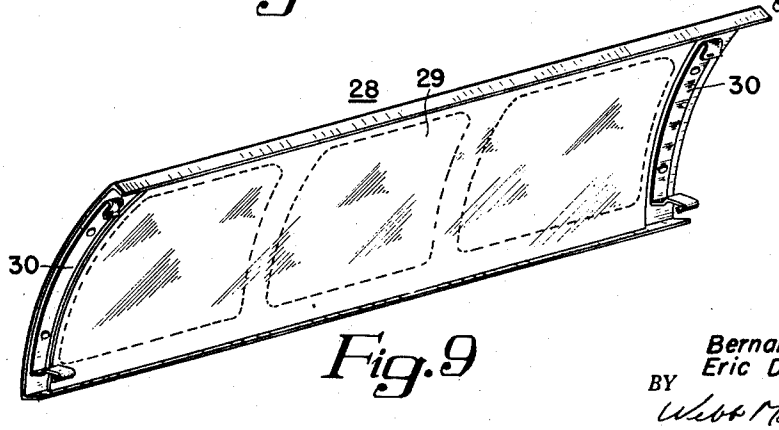


Fig. 9

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UNITED STATES PATENT OFFICE

2,566,845

LUMINAIRE HAVING END MEMBERS AND QUICKLY DETACHABLE SIDE PANELS

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Application September 8, 1949, Serial No. 114,498

5 Claims. (Cl. 240—51.11)

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This application relates to luminaires, more particularly to luminaires which are attached directly to a room ceiling or which are suspended from the ceiling on stems. Such luminaires comprise a raceway, end members, electrical equipment (lampholders, ballasts, etc.), opaque or translucent side panels which extend the length of the luminaire from one end member to the other and form both the sides of the luminaire and a means of light control, and a reflector and louver assembly below the lamps.

After a luminaire has been installed, it is frequently necessary to remove the side panels for cleaning and for repair or replacement of the electrical equipment.. We have invented simple efficient means whereby the side panels of a luminaire can readily be removed solely by hand. This same means, however, holds the panels securely when they are in place in the luminaire.

In the accompanying drawings we have illustrated certain present preferred embodiments of our invention, in which—

Figure 1 is an isometric view of a luminaire constructed in accordance with our invention;

Figure 2 is a section along the lines II—II of Figure 1;

Figure 3 is an elevation view of an end member;

Figure 4 is a side view of an end member;

Figure 5 is a section along the lines V—V of Figure 3;

Figure 6 is an isometric view of a side panel;

Figure 7 is a portion of Figure 2 on an enlarged scale;

Figure 8 is a partial section on the lines VIII—VIII of Figure 7;

Figure 9 is an isometric view of another form of the side panel which may be used with our invention; and

Figure 10 is an isometric view of a luminaire equipped with a side panel such as is shown in Figure 9.

A luminaire constructed in accordance with our invention comprises a raceway 17 which may be fastened to the ceiling of a room by screws or bolts which pass through its horizontal surface. The luminaire also has end members 11, side panels 13, fluorescent tubes 14 and light diffusing means here shown as louvers 15. The louvers are connected to each other by a V-shaped sheet metal reflector 16 and they are held at each end to the end members 11 by means not shown in the drawings inasmuch as this forms no part of the present invention. The sheet metal raceway 17 extends the length of the luminaire from one end member 11 to the other. This raceway

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houses the electrical equipment, such as ballasts, lampholders for the fluorescent tubes 14, etc. Such electrical equipment is standard and is therefore not shown in the drawings.

As shown in Figures 3, 4 and 5 the end members are bent back on themselves along each of their side edges. The metal is then bent at right angles to the plane of the end member to form transversely extending flanges 18 which are offset inwardly from the sides but follow the contour of the sides of the end members. Each flange 18 has a slot 19 cut in its upper edge and an opening 20 cut adjacent its lower edge. The purpose of the slots and openings will be later described.

Figure 6 shows a side panel such as may be used with our luminaire, the panel here shown being opaque. The panels 13 are sheets of metal curved to conform to the contour of the side members and having inturned edges 21 and 22. Reinforcing ribs 23 may also be formed in the panel. Each panel carries at each end a spring clip 24 which is secured to the panel by any suitable means, rivets being shown in the drawings. A hook 25 is formed at the upper end of each spring clip by bending a portion of the clip back over itself as shown in Figure 6. The lower end of each spring clip is bent approximately at right angles to the body of the clip to form an inwardly extending lug or tongue 26. As shown in Figure 6, the tongue extends approximately at right angles from the main body of the clip for a short distance. It next slopes upwardly and outwardly (as at 26*a*) and then approximately at right angles to the clip body (as at 26*b*). The end of the tongue is curled back on itself into a substantially complete circle to form a small bead 27.

Figures 2, 7 and 8 show how the side panels are fastened to the end members. The side panels are first held in such position that the hooks 25 on the springs will slide down into the slots 19. The lower edge of the panel is then swung inwardly against the end members to press the tongues 26 into the openings 20 on the flanges 18 in the end members. As the lower edges of the panels are pressed toward the end members, the portions 26*b* on the tongues 26 engage the upper edge of the openings 20 in the flanges 18 on the end members. Continued inward pressure of the side panels momentarily deflects the tongues 26 until the upper edges of the openings 20 fit into the troughs formed by the portions 26*a* and the bodies of the clips and are held there by the spring of the clips.

Figure 9 is an isometric view of another form of side panel which can be used with our invention, the panel here shown being translucent. This panel **28** is in the form of a rectangular frame which supports separate panels **29** of transparent or translucent materials, such as glass, plastic, etc. The panel **28** has spring clips **30** which are the same as the spring clips heretofore described and which engage transverse flanges on the end members of a luminaire as described with reference to Figures 2, 7 and 8. Figure 10 is an isometric view of a luminaire having side panels such as the panel **28**. This luminaire is otherwise the same as the luminaire shown in Figure 1.

From the foregoing description it will be appreciated that our luminaire possesses simple secure means for holding the side panels of the luminaire in place. At the same time the panels can easily be removed by hand whenever it is desired. The transverse flanges of the end members which supports the side panels are offset inwardly from the sides of the end members. The outer surface of the side panels can thus be made flush with the edges of the end members. This gives an integral appearance to the luminaire even though the side panels are removable.

While we have described certain present preferred embodiments of our invention, it is to be understood that it may be otherwise embodied within the scope of the appended claims.

We claim:

1. A luminaire comprising end members and side panels, the end members having transversely extending flanges adjacent their side edges, each flange having a slot extending downwardly from its top edge and an opening adjacent its lower edge, the side panels having spring clips which carry hooks which fit into the slots in the flanges and inwardly extending tongues which resiliently engage the flanges at said openings when the side panels are in position on the luminaire.

2. In a luminaire having end members and side panels, means for removably supporting the side panels in position said means comprising transversely extending flanges on the end members adjacent the side edges of said members, a slot in the top of each flange and an opening adjacent the lower edge of each flange, and spring clips on the side panels each clip having a hook which is adapted to rest in one of the slots and an inwardly extending tongue which resiliently engages one of the flanges at said opening in the flange when the side panels are in position on the luminaire.

3. In a luminaire having end members and side panels, means for removably supporting the side panels in position said means comprising transversely extending flanges on the end members adjacent the side edges of said members, an opening in each flange and spring clips on the side panels said clips each having a tongue adapted to extend through one of said openings, the tongues being bent first approximately at right angles to and away from the body of the clip, the tongues then being bent upwardly and outwardly away from the clip to form a trough adapted to engage an edge of said opening when the panel is in position on the luminaire, the tongue then being bent downwardly and outwardly to form a surface adapted to engage an edge of said opening when the panel is being moved towards the end members whereby to deflect the tongue so that it can pass through said opening during movement of the panels towards the end members.

4. A support for the side panels of a luminaire as described in claim 3 wherein the clips are secured to the panels at a position on the clips spaced from the tongues of the clips.

5. In a luminaire having end members and side panels, means for removably suporting the side panels in position said means comprising transversely extending flanges on the end members adjacent the side edges of said members, a slot in the top of each flange and an opening adjacent the lower edge of each flange, and spring clips on the side panels each clip having a hook which is adapted to rest in one of the slots, each clip also having a tongue adapted to extend through one of said openings, the tongue being bent first approximately at right angles to and away from the body of the clip, the tongue then being bent upwardly and outwardly away from the clip to form a trough adapted to engage an edge of said opening when the panel is in position on the luminaire, the tongue then being bent downwardly and outwardly to form a surface adapted to engage an edge of said opening when the panel is being moved towards the end members whereby to deflect the tongue so that it can pass through said opening during movement of the panels towards the end members.

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