April 22, 1952 P. A. JONES 2,593,513

RECESSED LIGHT FIXTURE WITH REMOVABLE LIGHT TRANSMITTING PANEL

Filed Nov. 18, 1948

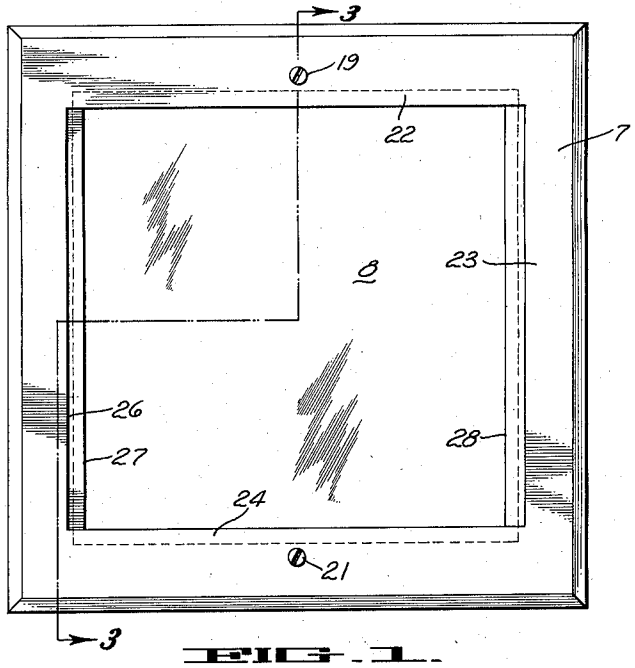


FIG. 1.

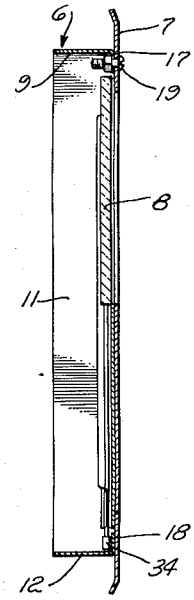


FIG. 3.

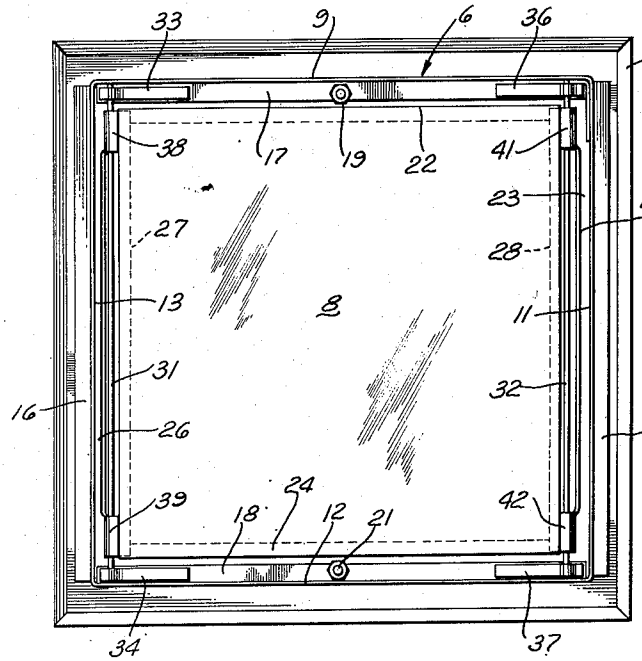


FIG. 2.

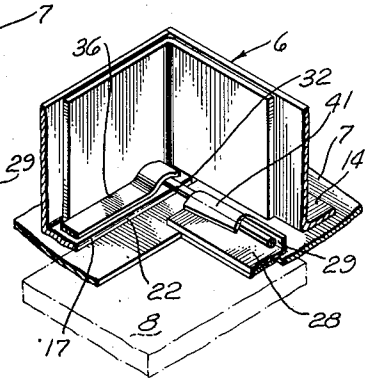


FIG. 4.

INVENTOR.
PRESTON A. JONES
BY Joseph B. Gardner
atty.

Patented Apr. 22, 1952 2,593,513

UNITED STATES PATENT OFFICE

2,593,513

RECESSED LIGHT FIXTURE WITH REMOVABLE LIGHT TRANSMITTING PANEL

Preston A. Jones, Berkeley, Calif.

Application November 18, 1948, Serial No. 60,648

4 Claims. (Cl. 240—78)

1

The invention relates to light fixtures, particularly of the wall or ceiling recessed type wherein the fixture is provided with a flush wall opening normally covered by a translucent glass pane supported in place by a frame providing the wall trim of the fixture.

An object of the present invention is to provide a light fixture of the character described which is constructed to permit easy and rapid removal of the glass pane positioned across the wall opening so as to afford access to the interior of the fixture for removing lamps therein.

Another object of the invention is to provid a light fixture of the character above wherein the removal and insertion of the glass pane may be accomplished without the removal of screws, nuts or any other part of the fixture.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawing accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawing and description may be adopted within the scope of the invention as set forth in the claims.

Referring to said drawing:

Figure 1 is a front elevation of a light fixture constructed in accordance with the present invention.

Figure 2 is a rear elevation of the fixture illustrated in Figure 1.

Figure 3 is a cross-sectional view of the fixture taken substantially on the plane of line 3—3 of Figure 1.

Figure 4 is a fragmentary perspective view of a portion of the fixture.

The light fixture of the present invention includes a fixture enclosure or housing 6 having an open end adapted for flush wall mounting and a face plate 7 providing the wall trip for the opening and coacting with the enclosure to provide a frame support for a pane 8 preferably of translucent material such as glass or other light conducting material. In accordance with the present invention and as one of the principal features thereof, to be presently more fully described, the frame is provided with one or more displaceable edge portions engageable exteriorly of the device to permit an enlargement of the frame opening for removal or insertion of the pane.

The fixture may be designed to provide a light opening of any shape or size, but as here shown is designed to provide a light opening of rectangular shape. As will be seen from the drawing, the enclosure 6 is a boxlike member having rectangularly related side walls 9, 11, 12 and 13 adapted for mounting within a wall or ceiling opening with one or more of such sides permanently secured to one or more wall timbers, such as studs, joists or the like. In the present construction, the side walls 11 and 13 are provided at their front face with out-turned flanges 14 and 16 adapted for engagement against the exterior wall finish to provide a flush mounting of the open end of the enclosure in the wall. The other two sides, 9 and 12, are provided with in-turned flanges 17 and 18 which afford a securing means for the front plate 7, the latter being detachably secured to these flanges and across the open front of the enclosure by means of screws 19 and 21.

2

The front plate 7 is here formed with a rectangular shaped opening substantially aligned with the interior of the enclosure, but of a somewhat smaller dimension so that perimetric edge portions 22 and 23, and 24 and 26, of the plate, bounding the opening therein, project internally from the side walls of the enclosure so as to provide internally projecting flanges at the open front of the enclosure.

In accordance with the present construction, the opening in the front plate 7 is further restricted by means of one or more displaceable members normally positioned at the perimeter of the opening so as to support and retain the pane 8 within the frame, but which are manually displaceable from the front of the device to enlarge the frame opening sufficiently to permit removal or insertion of the pane. In the present showing, a pair of such members 27 and 28 are mounted along the edge flanges 23 and 26. As here shown, these members are of flat, elongated form having a length sufficient to span the opposite flanges 22 and 24 and are hinged adjacent a side edge 29 about a longitudinal axis, so as to swing inwardly into the enclosure. Normally, the strips 27 and 28 lie upon the edge flanges in the plane of the opening and project inwardly from the opposite side flanges 23 and 26 so as to narrow the width of the opening. In the present construction, pivotal support for the members 27 and 28 is afforded by hinge pins 31 and 32 which are journalled at the opposite ends in clips 33 and 34, and 36 and 37, secured to the enclosure flanges 17 and 18. Attachment of the outer edges of the members 27 and 28 to the pivot pins is here effected by crimping ears 38 and 39, and 41 and 42, on the members, around the pivot pins 31 and 32.

The pane 8 is provided with a perimetric form generally conforming to the shape of the frame opening but being somewhat larger than the opening, so as to engage at its edges and be supported by the edge flanges of the opening and the pivoted members 27 and 28. Where the fixture is mounted in a ceiling, the pane will be supported in horizontal position and its weight, acting on the pivoted strips 27 and 28, will hold the latter in their supported position in the plane of the opening. Since these strips project inwardly from the edge flanges 23 and 26 of the front plate, a substantial portion of each of the strips is exposed at the under side of the front plate, as will be seen from Figure 1. When it is desired to remove the pane, the user presses upwardly against the exposed part of one or both of the strips 27 and 28 so as to swing such strip upwardly and into the enclosure about the pivotal axis of the strip. This action, as will be clear, enlarges the extent of the frame opening and the pane 8 may thereupon be removed to afford access to the interior of the fixture, as for example when desired to change a light bulb or to clean the fixture, or the like. Thereafter, the pane may be reinserted by again pressing one or both of the pivoted strips upwardly, so as to enlarge the opening sufficiently to admit the pane into the interior of the enclosure, and then lowering the strip to its opening restricting position, where it will serve as a support for the adjacent edge of the pane.

In the present construction, the displaceable strips 27 and 28 are so mounted as to automatically return to their frame defining position upon being released from an inwardly displaced, frame enlarging position. Such automatic return is provided in the present construction by the off-center pivoting of the strips adjacent their outer edges so that the strips will automatically gravitate from their raised, frame enlarging, position to their horizontal, frame defining, position. Also, if desired, this latter return of the strips may be assisted by spring action. As here shown, the spacing of the hinge pins 31 and 32 from the fixed flanges 23 and 26 is less than the spacing of the pins from the rear edges of the strips so that, on swinging the strips to their inwardly elevated position, the pins are resiliently bowed over their length between the clips 33 and 34, thereby resiliently urging the return of the strips to their horizontal position.

I claim:

1. In a light fixture, a rectangular frame defining an opening for the fixture and having a plurality of rectangularly related sides arranged in a substantially common plane defining perimetric edge flanges for said opening, a light transmitting pane dimensioned to lie interiorly of said frame and upon said edge flanges, one of said edge flanges being hinged to swing interiorly from said plane so as to enlarge said opening and to permit insertion and removal of said pane, and means for limiting swinging of said one flange outwardly from said plane so as to retain said pane in position.

2. In a light fixture, an enclosure defining an opening for said fixture, a face plate detachably secured to said enclosure and provided with an opening registering with but of lesser size than said first opening to position perimetric edge portions of said plate across said enclosure opening, a member pivotally secured to said face plate and overlying one of said plate portions and extending transversely and substantially parallel to said portion into said plate opening, and a translucent pane dimensioned to lie within said enclosure for support on said plate portions and on said member, said member being pivotally movable from said parallel position to a position substantially perpendicular to said portion and within said enclosure so as to enlarge said letter opening and permit removal and insertion of said pane, and means for urging said member into pane supporting position.

3. In a light fixture, an enclosure provided with an open side, a face plate secured to said side and formed with a centrally arranged opening surrounded by edge portions arranged in a substantially common plane and projecting internally of said enclosure side to provide a plurality of internal perimetric flanges thereat, a flat elongated member pivotally secured to said enclosure at said side thereof and positioned to overlie and project inwardly with respect to one of said flanges, said member being engageable from the exterior side of said plate for arcuate displacement internally away from said last named flange, and a pane of light transmitting material dimensioned to fit within said enclosure upon said member and flanges.

4. A light fixture comprising, an enclosure having a rectangular side wall terminating in an open end, a face plate secured to said enclosure and extending across said end and formed with a rectangular opening of lesser size than the interior of said enclosure to provide rectangularly related edge flanges projecting internally from said enclosure walls, a flat elongated member pivotally secured along a longitudinal edge thereof to said enclosure positioned to overlie and project inwardly with respect to one of said flanges, and a pane of light transmitting material dimensioned to fit within said enclosure and upon said member and flanges, said member being engageable from the exterior side of said plate for arcuate displacement into said enclosure to enlarge said smaller opening so as to permit removal and insertion of said pane, and means urging said member into supporting position.

PRESTON A. JONES.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
551,671	Gray	Dec. 17, 1895
861,689	Wilhems	July 30, 1907
1,215,274	Hawthorne	Feb. 6, 1917
1,799,304	Logan	Apr. 7, 1931
2,120,449	Vanderweld	June 14, 1938
2,313,131	Elias	Mar. 9, 1943
2,409,758	Hohmann et al.	Oct. 22, 1946
2,440,603	Guth	Apr. 27, 1948