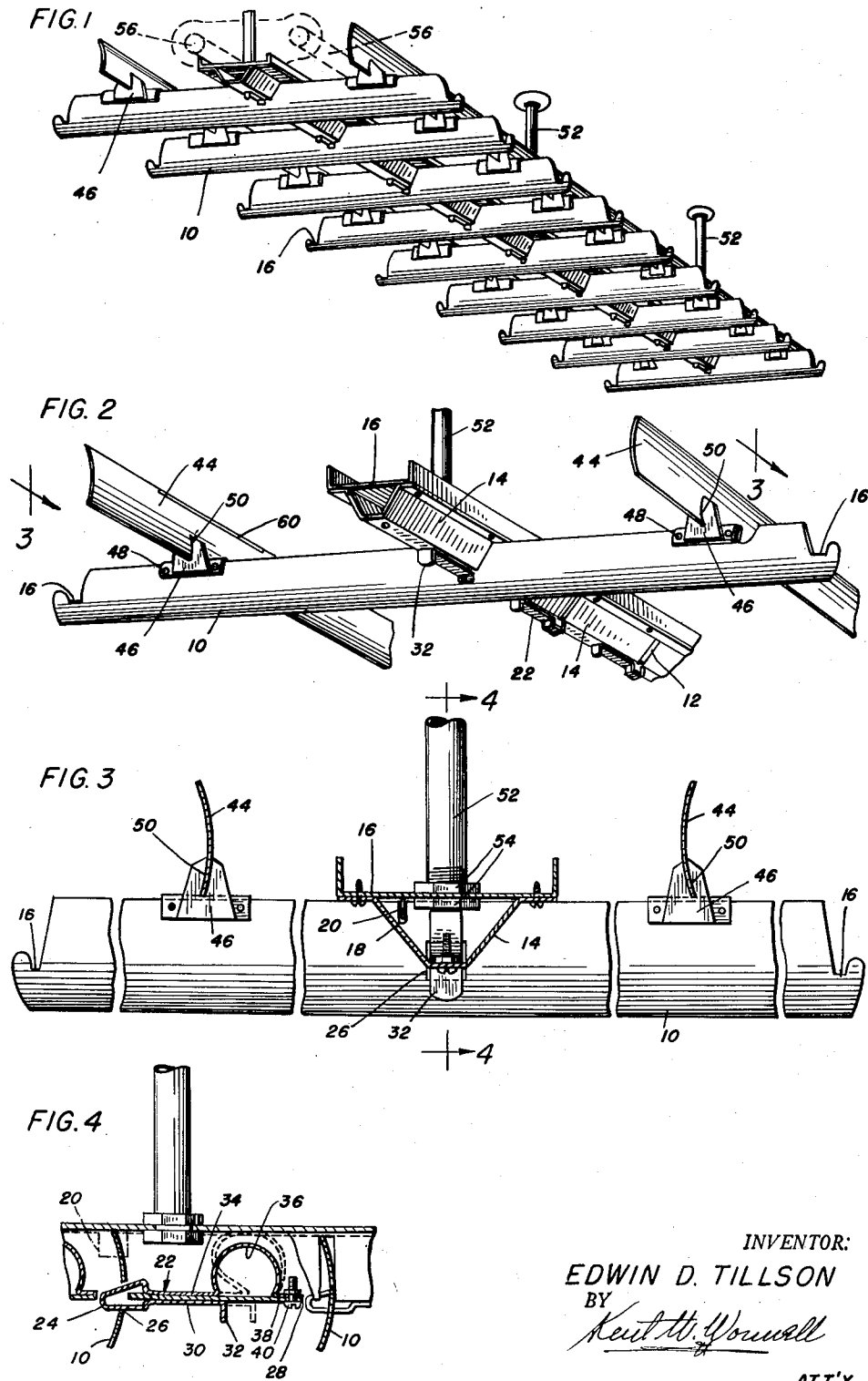


Feb. 23, 1954

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ELECTRIC LIGHTING FIXTURE

2,670,429

Filed Dec. 21, 1949



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UNITED STATES PATENT OFFICE

2,670,429

ELECTRIC LIGHTING FIXTURE

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Application December 21, 1949, Serial No. 134,301

7 Claims. (Cl. 240—78)

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This invention relates in general to an electric lighting fixture and is more particularly described as a shielding louver type of fixture adapted to be used with straight tubular lamps.

In the cellular type of louver construction for shielding the brightness of electric lamps, it is difficult to clean the ordinary louver blades or surfaces, and they are either removable as a composite grid or the parts are secured together so that the separate surfaces are not easily accessible for repair, replacement, adjustment, or cleaning.

If the louver strips are made of ordinary strap material, they are easily bent and have no rigidity for the attachment of other parts or else the louver strips are rigidly attached together as by soldering or spot welding so that an entire grid must be inserted or removed as a unit.

The present invention overcomes these objections by providing separate transverse and longitudinal louver blades which are preferably stiffened by curving or embossing them transversely to add rigidity and they are separately mounted both as to the transverse and longitudinal members so that any one of them may be separately removed without necessarily disturbing any of the others.

An important object of the invention is in the provision of an electric lighting fixture in which the blades or shielding units both transverse and longitudinal are separately mounted and separately removable.

A further object of the invention is to provide means for locking each transverse unit to a longitudinal support.

A further object of the invention is to provide means in connection with the transverse shielding blades for engaging and mounting longitudinal shielding blades at the upper edges thereof.

Another object of the invention is to provide means for positioning and spacing the transverse louver blades so that they will be non-reversible and aligned for supporting longitudinal blades thereon.

Other objects of the invention will appear in the specification and will be apparent from the accompanying drawings, in which,

Fig. 1 is a perspective view of an electric lighting fixture reflector in accordance with this invention;

Fig. 2 is an enlarged perspective view of a single transverse louver and portions of the support and longitudinal louvers as shown in Fig. 1;

Fig. 3 is a transverse elevation of one of the cross louvers as taken on the line 3—3 of Fig. 2; and

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Fig. 4 is a sectional view as taken on the line 4—4 of Fig. 3;

This invention is best understood by considering the transverse and longitudinal shielding blades as consisting of cross-sectionally curved strips of thin metal of the type which may be used for Venetian blinds, the curvature of the blades adding strength so that a light-weight blade can be used for shielding slats of considerable length, maintaining them in straight longitudinal shape without bending flatwise and being capable of maintaining a considerable weight edgewise without bending or deflection.

Referring now more particularly to the drawings, a number of cross blades 10 are mounted in slots 12 of an angular holder 14 supported by a channel plate 16. Each blade 10 is curved transversely in a fixed arc which maintains the blade straight longitudinally and transversely without tendency to bend or to be deflected under the ordinary conditions of weight and usage. At the ends of each blade are notches 16 for receiving side pieces of a side reflector, usually glass, plastic, or metal. Near the center of each blade is a notch 18 adapted to engage a projection 20 struck out from the surface of the channel 16 for the purpose of locating and holding the blade in the proper position, and rendering it non-reversible.

In order to seat each blade 10 in a corresponding slot 12 of the holder, a spring lock 22 is provided comprising a strip of metal or other resilient material bent to form a sloping head 24 adapted to be inserted through an opening 26 in the blade which abuts the sloping upper portion of head to force the blade against the bottom of the slot, thus tending to firmly seat and align all cross blades. The lock has an outer portion 30 for flatly engaging the outer side of the holder 14 with a terminal finger hold portion 32 for moving the lock into and out of locking position. The holder is preferably made of thin sheet metal and the inner side of the holder is engaged by a flat portion 34 of the lock, the inner and outer portions 34 and 30 holding the lock and its head 24 in engagement with the holder and holding the head 24 of the lock with respect to the opening 26 of the blade.

In order to project the lock into locking position, a bowed or curved portion 36 extends from the inner flat portion 34 and terminates in a flat portion 38 which is secured by suitable means such as a fastening screw 40 to the material of the holder 14 adjacent to the slot 12 for the next blade.

With this construction, the curved portion 36

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tends to press the head 24 of the lock through the opening 26 of the blade maintaining it in position. To disengage the lock from the blade, the finger-hold 32 is engaged and the locking head is retracted through the opening 26 in the blade, compressing the curved portion 36 which upon release tends to return to the locking position.

One or more longitudinal shielding blades 44 may be supported at each side of the center of the transverse blades 10 in an upright edge to edge position by means of a bracket 46 embracing or secured to the uppermost edge. One or more of the cross blades 10 has one or more brackets on each side of the center of the cross blades depending upon the number of longitudinal blades which are to be supported. This bracket may be in the form of a sheet metal saddle which embraces both sides of the upper edge of the transverse blade and may be secured thereto by fastening screws or rivets 48. One portion of the bracket extends above the upper edge of the transverse blade and is formed with an inclined or curved slot 50 to receive the longitudinal blade 44 therein and to hold it in relatively upright edge to edge position with relation to the transverse blades 10.

It is not necessary to have a bracket 46 on each of the cross pieces, but it is usually sufficient if two or more of the cross pieces are so provided to support the longitudinal blades. By having the brackets on two or more transverse blades, the engagement of the longitudinal and transverse blades is held firm and prevents them from looseness and rattling. Brackets to hold the longitudinal blades may also be suspended from the main body of the fixture channel.

The lighting fixture to which this louver system is applied may be supported by one or more suspending posts 52, each of which is connected to the channel supporting member 16 in any well known manner as by threading the end of the post and attaching lock nuts 54 thereto on opposite sides of the web of the channel. Lighting tubes 56 are supported above the transverse and longitudinal blades and in connection with the channel 16 in any well known manner and when the fixture is completed, it is customary to have side reflectors and diffusers of metal or transparent material which may be supported at the edges of the transverse blades by the notches 16.

With this construction, thin transversely curved blades of light-weight but of considerable strength are individually supported in the slots 12, positioned therein by the projections 20 and removably held in place by locks 22. These transverse blades shield light from the lamp or lamps longitudinally of the fixture and if it is also desired to shield the lamps in a transverse direction, longitudinal blades 44 may be supported at the tops of the transverse blades in the brackets 46 which ride upon the edges of the transverse blades or are secured thereto to hold the longitudinal blades in upright position. If it is necessary to strengthen either the transverse or the longitudinal blades 44, they may be provided at their upper edges with a rib 60 either made up of the same material of the blade and turned over at the edge or formed of separate material and applied over the edge or secured thereto in any well known manner.

Although only one longitudinal blade is shown on each side of the center of transverse blades, two or more longitudinal blades may be similarly supported at each side of the center of the transverse blades depending somewhat upon the size

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of the fixture and the number of lamps to be shielded. The effect of rectangular cells is thus provided without the attendant disadvantages as to cleaning, removal, weight and replacement of the parts.

While a preferred construction has thus been described in some detail, it should be regarded by way of example and illustration rather than as a limitation or restriction of the invention as various changes in the construction, combination and arrangement of the parts may be made without departing from the spirit and scope of the invention.

I claim:

1. An electric lighting fixture comprising lamps and a shielding louver system therefor, the louver system comprising transverse and longitudinal blades, the transverse blades having a common slotted central holder and individual means for removably securing each of the transverse blades in one of the slots, and longitudinal blades extending over a plurality of the transverse blades and means for supporting them in upright position at the upper edges thereof parallel with the central holder.

2. In an electric lighting fixture, a shielding louver system comprising transverse and longitudinal blades, the transverse blades being curved transversely to give them additional longitudinal rigidity, means at the tops of the transverse blades for supporting the longitudinal blades in upright position at the upper edges of the transverse blades, a central holder parallel with the longitudinal blades having slots for receiving the transverse blades, and locking means in connection with the holder for removably engaging each of the transverse blades and holding it in its respective slot.

3. An electric lighting fixture having a shielding louver system, comprising transverse and longitudinal blades, the blades being curved transversely to give them additional longitudinal rigidity, means secured to the top edges of the transverse blades for supporting the longitudinal blades in upright position contacting the upper edges of the transverse blades, a supporting holder extending parallel with the longitudinal blades for the transverse blades comprising a slotted support into which the upper edges of the transverse blades extend, and locking means in connection with the holder movable to engage each of the transverse blades for holding it in its respective slot.

4. In an electric lighting fixture, lamp shielding means therefor, comprising a longitudinal slotted hollow holder, transverse blades curved transversely to extend into the slot of the holder, a projection in the holder and a corresponding notch in the edge of the blade to connect it always in the same position relative to the holder, and locking means in connection with the holder for separately and removably engaging each blade and including a perforation in the blade, and a slidable head to extend through the perforation of the blade.

5. In a lighting fixture reflector, a longitudinal hollow support having spaced transverse slots, a plurality of shielding blades each seated in one of the slots, a lock in the support for each blade comprising a spring pressed slide having a head at one end adapted to be projected across the slot by the spring, and the blade having an opening through which the slide extends to lock the blade in the slot.

6. In a reflector for a lighting fixture, a longi-

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tudinal hollow holder having spaced slots, a plurality of transverse shielding blades each seated in one of the slots, means in connection with the blade and the holder for engaging the blades in the holder in parallel upright position, and a lock for each blade comprising a perforation in the blade adjacent the slot of the holder, a locking device for each blade slidable longitudinally on the holder between the blades having opposite portions embracing the wall of the holder with a head at one end to be projected across the slot and through the perforation of the blade, the outer portion of the locking device having a finger hold projection and the inner portion of the locking member having a resilient bend, and means for attaching the end thereof to the holder so that the bend may be compressed by the finger hold to retract the head through the perforation of the blade.

7. In a lighting fixture louver system, a plurality of transverse louver blades, means for holding the blades in parallel upright relation, brackets saddling the upper edges of the blades and having an upward projection with an upward inclined slot therein, and longitudinal louver blades each curved transversely to give it longitudinal rigidity, the lower edges of the longitudi-

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nal blades being seated in the inclined slots to hold the longitudinal blades on top of the transverse blades substantially in a vertical edge to edge relation with respect to the transverse blades.

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