May 18, 1943 E. B. WILSON 2,319,572

LOUVER FOR LIGHTING FIXTURES

Filed Oct. 20, 1941

Fig. 1.

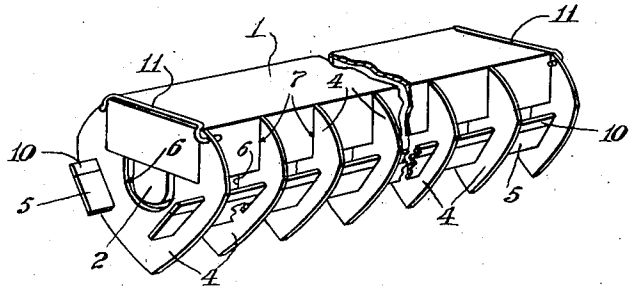



Fig. 2.

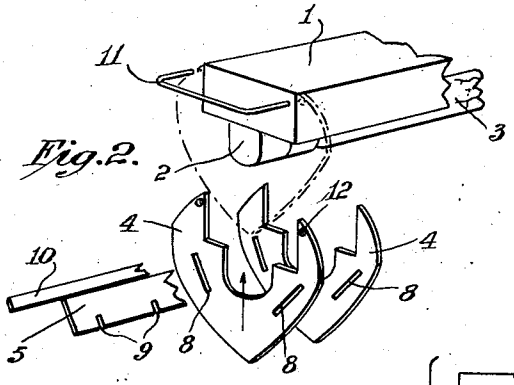



Fig. 3.

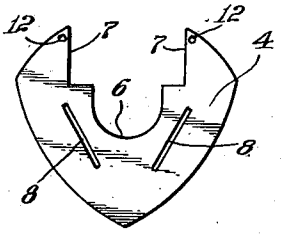



Fig. 4.

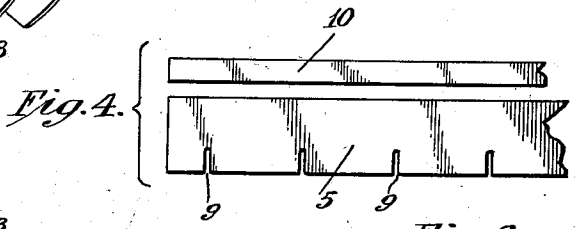



Fig. 5.

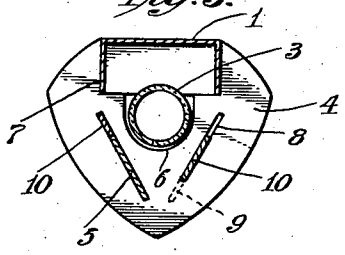



Fig. 6.

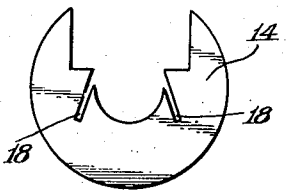



Fig. 7.

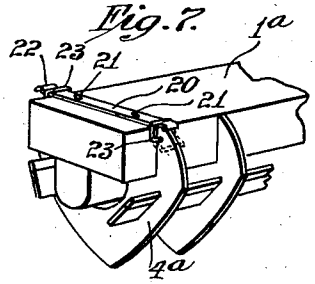
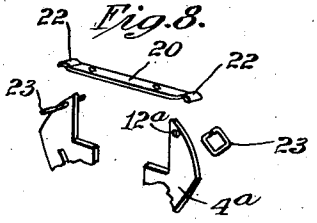



Fig. 8.

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# UNITED STATES PATENT OFFICE

2,319,572

## LOUVER FOR LIGHTING FIXTURES

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Application October 20, 1941, Serial No. 415,670

4 Claims. (Cl. 240—78)

This invention relates to new and useful improvements in lighting fixtures and more particularly to detachable louvers for lighting fixtures containing fluorescent illuminating tubes.

The principal object of the present invention is to provide a louver assembled from a few simple and inexpensive parts which when put together will guard against glare.

Another object of the invention is to provide a louver which can be easily assembled, preferably without the use of any special tools, and which yet will be sufficiently rigid to withstand handling and retain its shape when assembled, even though the parts are made of plastics, thin metal or other thin and flexible material.

Still another object of the invention is to provide a louver construction which can be readily attached to and removed from existing lighting fixtures, such as strip or line fluorescent tube assemblies.

The nature of the invention will be explained with the aid of a preferred embodiment thereof which accomplishes all the objects above named. However, it will be obvious to those skilled in the art that modifications and alterations may be effected, possibly by sacrificing some of the advantages, without departing from the spirit of the invention which is defined in the appended claims.

In the drawing

Fig. 1 is a perspective view of a lighting fixture equipped with the louvers of my invention;

Fig. 2 is a perspective view of a portion of Fig. 1 taken apart so as to illustrate the manner in which the louvers are assembled;

Fig. 3 is a plan view of one of the louver sections;

Fig. 4 is a plan view of a strip and cooperating key by means of which the louver sections are held together;

Fig. 5 is a vertical cross-section of the assembled fixture and louvers;

Fig. 6 is a plan view of a modified type of louver section;

Figs. 7 and 8 illustrate an alternative arrangement for suspending the louver from the lighting fixture, Fig. 7 being a perspective of part of a complete assembly, and Fig. 8 illustrating the elements thereof in a disassembled condition.

In the drawing I have illustrated a well known type of lighting fixture in which a box-like oblong casing carries two sockets near its ends, one of which is indicated at 2, between which a fluorescent tube 3 is held in horizontal position below the bottom of the casing which may serve as a reflector. To conceal the unsightly appearance of a bare fluorescent tube and also to prevent glare, fixtures are often equipped with louvers so as to conceal the fluorescent tube from view, except from a position directly below it. In order to permit the equipping of existing structures with such louvers, I provide a plurality of louver sections which may be interlocked and held assembled by means of a locking strip 5. The louver sections and interlocking strip may be made of thin metal sheets or thin sheets of plastic material, preferably the latter.

Each section 4 is substantially semi-circular or has such other outside contour as may be desired. The cut-out in the section must be so shaped as to accommodate the tube or tubes which may be provided in the fixture. In the present case, the middle portion of the section 4 is cut-out to form a U with a cavity 6 at the bottom within which the fluorescent tube 3 is accommodated. The vertical sides 7 of the U will hug the side walls of the casing 1 when the sections 4 are in place.

A locking strip 5 is inserted through each slot 8 cut in the section 4. The two slots are at an angle to the radius of the section and slope towards one another on two sides of a vertical line drawn through the U. The locking strips 5 are provided with lateral notches 9 which may be pushed down over the body of the louver section 4 to lock it in place. The spacing of the notches 9 determines the spacing of the louver sections 4. In order to guard against a locking strip 5 from being dislodged after the strip is placed within the perforations 8 and pushed down, a key 10 is inserted through the perforations 8. The key 10 may or may not parallel the locking strip 5 throughout its length and may be omitted altogether.

The louver comprising, with respect to tube 3, a plurality of transverse sections 4 interlocked by two strips 5 and keys 10 may be applied to the lighting fixture as shown in Fig. 1. The longitudinal axes of strips 5 and tube 3 are parallel to one another. Any suitable means may be employed for holding it in place. The means illustrated in the drawing consists of wire bails 11 having ends which may be inserted within perforations 12 provided in some, e. g., the end sections 4. The bail is then turned to lie on top of the box 1.

In the structure illustrated in Fig. 6, a louver section 14 is shown, in which the openings are not like slots 8 but open sided notches 18 for accommodating the intersecting locking strip 5. In

this case no keys are used because the box 1 prevents them from displacement.

The transverse sections 4 and strips 5 will surround the tube 3 on its three exposed sides and protect against glare the eyes of persons who view the lamp from all sides, except directly below. The pleasing appearance of the louver can be enhanced not only by varying the outside contours of the sections 4, but by varying the colors of the sections 4, locking strips 5 and the keys 10. The louvers can be assembled for fixtures of any length and can be taken down as readily as they can be applied. In spite of the easy assembly, the parts will be firmly interlocked without danger of warping.

Referring now to Figs. 7 and 8, the louver is suspended from the fixture by transverse resilient straps 20 riveted or otherwise fastened at 21 to the top of fixture casing 1*a*. The ends 22 of strap 20 which overhand the edge of casing 1*a* are curved up to retain buckles 23 fastened in holes 12*a* of louver section 4*a*. There are as many straps 20 as are required securely to suspend the louver structure for which they afford a resilient mounting.

What I claim is:

1. In a fluorescent tube fixture, a casing, means for holding the tube below said casing, a plurality of thin louver sections transverse to said tube and having a portion surrounding the bottom and sides of the tube and portions projecting above the tube and attached to the casing, each section having two openings, and a removable locking strip in each of said openings and having spaced lateral notches each of which engages a section.

2. In a fluorescent tube fixture, a casing, means for holding the tube below said casing, a plurality of thin louver sections surrounding the bottom and sides of the tube and having portions projecting above the tube, each section having two slanting openings, two locking strips of the same length as said casing and having spaced lateral notches each of which engages a section when the strips are pushed through the openings in a set of sections, and means including the projecting portions of the louver sections for fastening a set of interlocked sections and strips to said casing with the sections transverse and the longitudinal axes of the strips parallel to the axis of the tube.

3. In a fluorescent tube fixture, a casing, means for holding the tube below the bottom of said casing, a plurality of thin louver sections, each section having a U-shaped cut-out with the sides of the U hugging the side walls of the casing and the bottom of the U so placed as to accommodate the tube, each section having also two slanting slots with respect to the center line of the casing, two locking strips of the same width as said slots and having spaced lateral notches each of which engages a section when the strips are pushed through the slots in a set of sections, and means for fastening a set of interlocked sections and strips to said casing.

4. In a fluorescent tube fixture, an oblong casing, sockets for holding the tube below the bottom of said casing, a plurality of thin louver sections, each section having a U-shaped cut-out with the sides of the U hugging the side walls of the casing and the bottom of the U so placed as to accommodate the tube, each section having also two slots at an angle to a radius and slanting towards one another on two sides of a line halving the U, two locking strips of the same width as said slots and having spaced lateral notches each of which engages a section when the strips are pushed through the slots in a set of sections, a key of the same width as said lateral notches for locking in place each strip, and means for fastening a set of interlocked sections and strips to said casing.

EDWIN BIRD WILSON.