Nov. 1, 1960 M. BODIAN 2,958,763

FLUORESCENT LIGHT FIXTURE ASSEMBLY

Filed Dec. 23, 1957 2 Sheets-Sheet 1

FIG. 1.

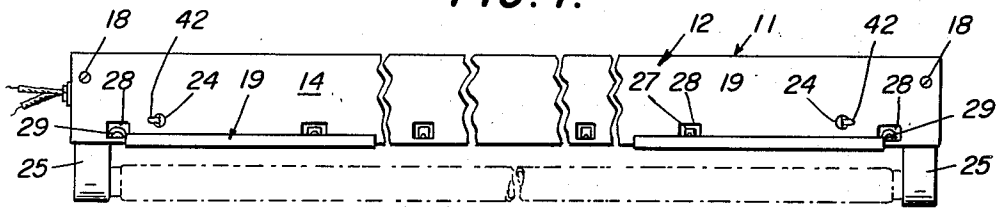


FIG. 2.

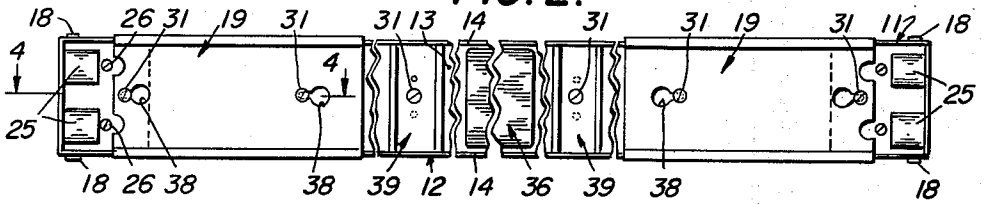


FIG. 3.

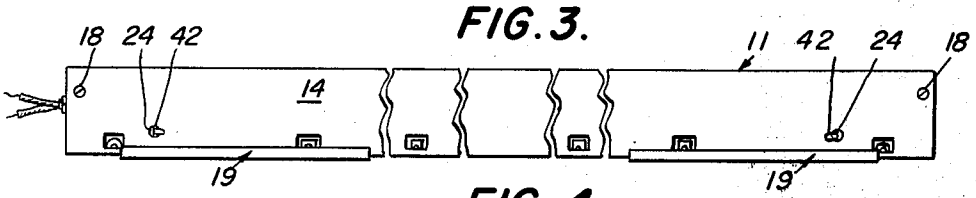


FIG. 4.

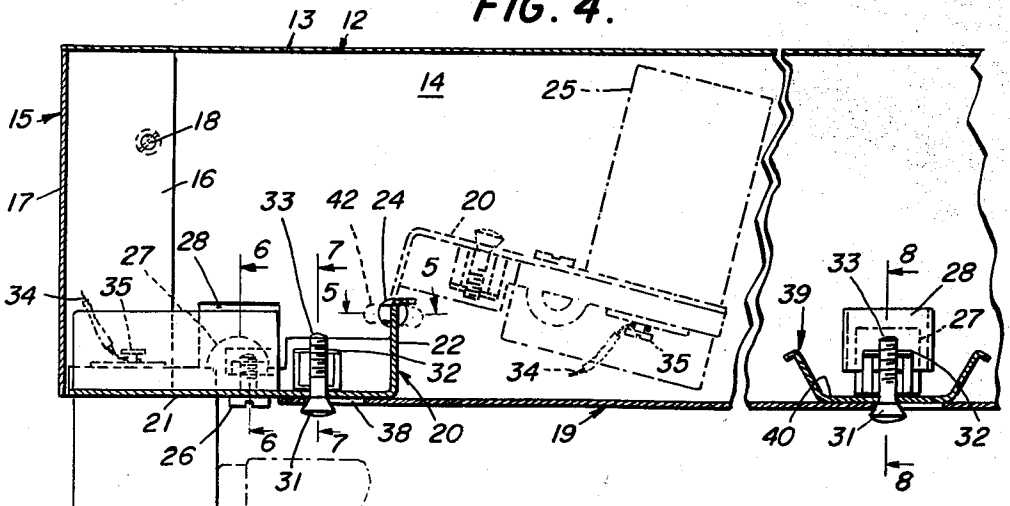
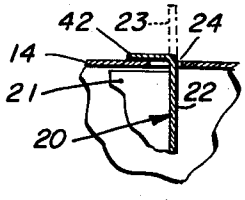


FIG. 5.



INVENTOR
MARCUS BODIAN
BY
Miner L. Hartmann
ATTORNEY

Nov. 1, 1960 M. BODIAN 2,958,763

FLUORESCENT LIGHT FIXTURE ASSEMBLY

Filed Dec. 23, 1957 2 Sheets-Sheet 2

FIG. 6.

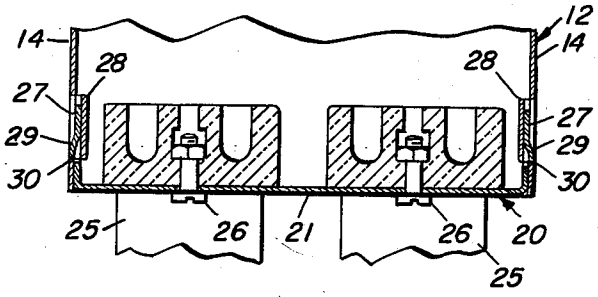


FIG. 10.

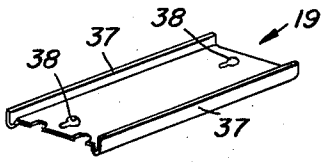


FIG. 11.

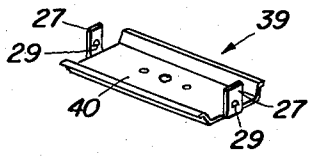


FIG. 7.

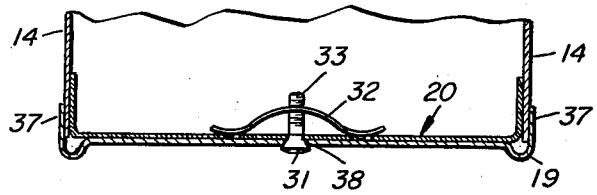


FIG. 12.

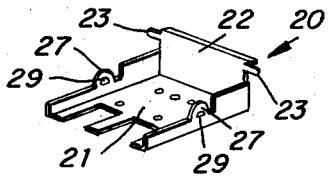


FIG. 8.

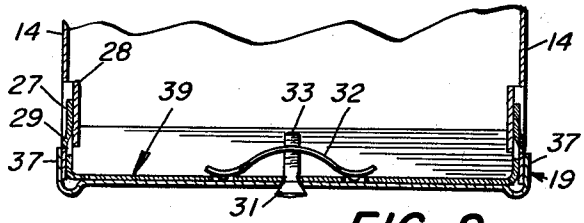
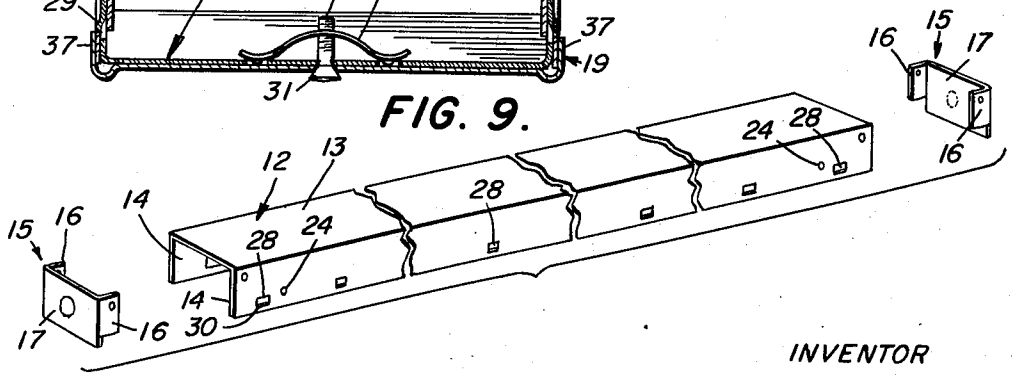


FIG. 9.



INVENTOR
MARCUS BODIAN
BY
Myron L. Hartman
ATTORNEY

United States Patent Office

2,958,763

Patented Nov. 1, 1960

2,958,763

FLUORESCENT LIGHT FIXTURE ASSEMBLY

Marcus Bodian, Los Angeles, Calif., assignor to Sunbeam Lighting Company, Los Angeles, Calif., a firm

Filed Dec. 23, 1957, Ser. No. 704,452

3 Claims. (Cl. 240—51.11)

This invention relates to a housing assembly for a fluorescent light fixture.

One object of the invention is to provide a simple and inexpensive assembled housing structure for a fluorescent light fixture. Another object is to provide a metal structure for a fluorescent light fixture which is readily assembled entirely from sheet metal stampings.

A further object is to provide a fluorescent light fixture in which the tube sockets therefor are mounted on pivoted socket-mounting members which may be swung from concealed packing and shipping position to permanent operative position.

A further object is to provide detent tab-in-slot fastening means for securing sheet metal parts of a fluorescent fixture housing.

Still another object is to provide an elongated metal housing for a fluorescent light having spring-tensioned button and key hole slot means for removably securing the closing member thereof.

These and other objects are attained by the invention herein described, reference being made to the accompanying drawings in which:

Fig. 1 is a side elevational view showing a fluorescent light fixture in assembled form in accordance with my invention;

Fig. 2 is a bottom plan view of the fixture shown in Fig. 1;

Fig. 3 is a side elevational view of the fixture shown in Fig. 1, with the sockets in non-operative position;

Fig. 4 is an enlarged cross-sectional view taken on the line 4—4 of Fig. 2;

Fig. 5 is a fragmentary cross-sectional view taken on line 5—5 of Fig. 4;

Fig. 6 is a fragmentary cross-sectional view taken on line 6—6 of Fig. 4;

Fig. 7 is a fragmentary cross-sectional view taken on the line 7—7 of Fig. 4;

Fig. 8 is a fragmentary cross-section taken on the line 8—8 of Fig. 4;

Fig. 9 is a disassembly view of the fixture housing;

Fig. 10 is a perspective view of the cover plate for the fixture housing;

Fig. 11 is a perspective view of a cross brace member for holding the cover plate;

Fig. 12 is a perspective view showing the mounting bracket for the fluorescent tube sockets.

Referring to the drawings, the fluorescent fixture of my invention consists generally of an assembled sheet metal housing with fluorescent tube sockets projecting from the housing, these sockets being electrically wired to connect to service lines and auxiliary equipment. The fixture housing 11 consists of a formed sheet metal channel 12 having a rectangular bottom 13 and side walls 14; the open face of the channel when mounted as a fixture facing downward. The channel is closed at the ends by end members 15 which are formed from sheet metal and have side tabs 16 bent at right angles to the end face 17, the side tabs being insertable in the ends of the channel 12 and being removably held in position by bolts 18 passing through corresponding holes in the side walls 14 and the side tabs 16. The channel 12 is provided with a cover 19, which will be later described in detail.

Adjacent the ends of the channel 12 are mounted brackets 20 formed from sheet metal, each consisting generally of a base 21, an up-turned end member 22 with pivot tabs 23 extending outwardly from the free edge thereof, said pivot tabs being adapted to pivotally mount the bracket 20 in pivot holes 24 in the side walls 14 of the channel 12. The ends 42 of the pivot tabs 23 may be bent at the outer ends to hold them more securely in the pivot holes of the sidewalls, as shown particularly in Figs. 4 and 5.

Fluorescent light sockets 25, preferably in pairs, are mounted by screws 26 to the bracket base 21. The base 21 of the bracket 20 is also provided at the edges with depending connecting tabs 27, these tabs being arranged in position to enter and engage corresponding struck-out slots 28 in the side walls of the channel 12. These connecting tabs 27 are each provided with a detent boss 29 which extend outwardly near the base of the tab and is arranged to engage the detent-engaging edge 30 extending across the opening of the struck-out slots 28 in the side walls of the channel. The bracket base 21 is also provided on its upper face (in operative position) with a spring tensioned button 31 whose arcuate spring 32 engages the under side of the base, the button being attached to a screw or stud 33, threadedly attached to the spring 32. This spring tensioned button 31 is used to hold the cover 19 by engaging the keyhole slots 38.

From concealed or non-operative position (as shown in broken lines in Fig. 4) the bracket 20 with the attached sockets is rotatable on the pivot tabs 23 the position of the tabs and holes 24 being selected so that the socket and bracket sub-assembly is completely within the housing 11; in this position the fixture is advantageously exposed for completing the wiring, for example to connect the leads 34 to the socket connectors 35, and also in this position the sockets are fully enclosed and protected from injury during storage, handling, and shipping. In this non-operative position the fixture becomes merely an elongated rectangular box which is easily packed in appropriate rectangular shipping cartons. After the fixture is received on the job and has been wired, the bracket 20 may then be rotated to operative position. It is not intended that once the fixture is assembled that the sockets be again rotated to concealed position; however, this is possible by forcing open the tab and slot connections by means of a screw driver or other tool which bends the detent-engaging edge 30 so that the tabs 27 are released.

The channel 12 serves as a wiring conduit for the service wires and the connecting leads to the sockets and to the ballast unit 36, which may be attached inside the channel intermediate the ends thereof.

The cover 19 for the channel 12 consists of a plate or plates having turned-over edges 37 which overlap the free edges of the side walls 14 of the channel. The cover members 19 are provided with keyhole slots 38 near the ends and also at selected intervals along the length of the covers. At the ends the keyhole slot 38 engages the spring tensioned button 31 which is mounted on the bracket base as previously described.

Cross-brace members 39, consisting of a cross bar 40 having connecting tabs 27 depending downwardly from ends of the cross bar, are arranged to engage the struck-out slots 28 distributed along the side walls 14 of the channel 12. A spring tensioned button 31 is provided on the upper face of each cross bar member 39; this button is spring tensioned, as described previously, by an

arcuate spring **32** engaging the stud **33** on the underside of the cross bar **40**. The cross-brace members are permanently attached to the channel at selected positions by simply pressing the connecting tabs in the corresponding struck-out slots. As shown on the drawing, the cover consists of two sections which extend to the ballast unit **41** which is mounted midway between the sockets. The entire open face of the channel may be covered by overlapping sections of cover using spring-tensioned buttons of appropriate neck length to engage the keyhole slots in the overlapping cover members.

The advantages of my invention will be apparent from the above description. The fixture is easily assembled from metal stampings without welding or, in general, without the use of screws except for the fastening of the end members **15** to the channel **12**, which are preferably fastened by bolts so that the ends may be easily removed for access to the wiring after the fixture has been mounted. The wiring of the fixture at the time of installation is facilitated by the pivoted bracket holding the sockets. The storage and shipping of the unit is facilitated by rotating the sockets to concealed position so that the entire unit is housed within the channel covered by the cover plates.

I claim:

1. In a fluorescent lamp fixture having a housing consisting essentially of an elongated sheet metal channel with a bottom, side walls, and end members, and having a pair of socket mounting brackets each including a base, said brackets being pivotally attached to the opposed sidewalls of said housing, each of said brackets being initially rotatable from a fully concealed position within said channel to a permanently fixed operative position whereby said base is disposed substantially in the plane of the open face of said channel, and said brackets being provided with sockets, for fluorescent lamps, mounted on said bracket bases, said sockets in the fixed operative position of said brackets protruding outside the open face of said channel and in position to receive tubular fluorescent lamps; means for permanently securing said bracket bases in operative position comprising struck out pocket slots in the side walls of said sheet metal channel and depending tab connectors with locking detent bosses extending from the under side of said base, said tab connectors being disposed to make locking engagement with said struck-out pocket slots.

2. In a fluorescent lamp fixture as defined in claim 1 cover means for the open face of said sheet metal channel between said sockets, after said sockets are permanently positioned for use, said cover means comprising a metal sheet with turned-over edges engaging the free edges of said channel sidewalls, said sheet being provided with keyhole slots disposed at spaced longitudinal positions; and means for removably attaching said cover including separable cross-brace members disposed at selected longitudinal positions along the open face of said channel, said cross-brace members being provided with turned-down tabs having detent bosses for engaging the struck-out slots in said sidewalls, and said bracket bases and said cross-brace members being provided on their upper surfaces with spring tensioned buttons adapted to engage corresponding keyhole slots in said cover means.

3. In a fluorescent lamp fixture as defined in claim 1 cover means for the open face of said sheet metal channel between said sockets, after said sockets are permanently positioned for use, said cover means comprising a metal sheet with turned-over edges engaging the free edges of said channel sidewalls, said sheet being provided with keyhole slots disposed at spaced longitudinal positions; and means for removably attaching said cover including separable cross-brace members disposed at selected longitudinal positions along the open face of said channel, said cross-brace members being provided with turned-down tabs having detent bosses for engaging the struck-out slots in said sidewalls, and said cross-brace members being provided on their upper surfaces with spring tensioned buttons adapted to engage corresponding keyhole slots in said cover means.

References Cited in the file of this patent

FOREIGN PATENTS

607,051 Great Britain 1948

OTHER REFERENCES

Lighting Magazine of February 1955, page 39.

Publication of Westinghouse Electric Corp., type EBC, Luminaire Hood.