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E. F. GUTH

2,379,798

LIGHTING FIXTURE

Filed Dec. 26, 1942

2 Sheets-Sheet 1

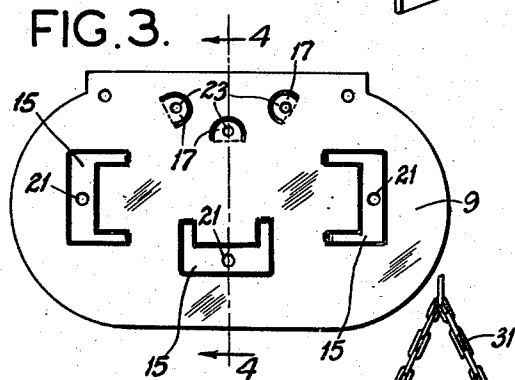
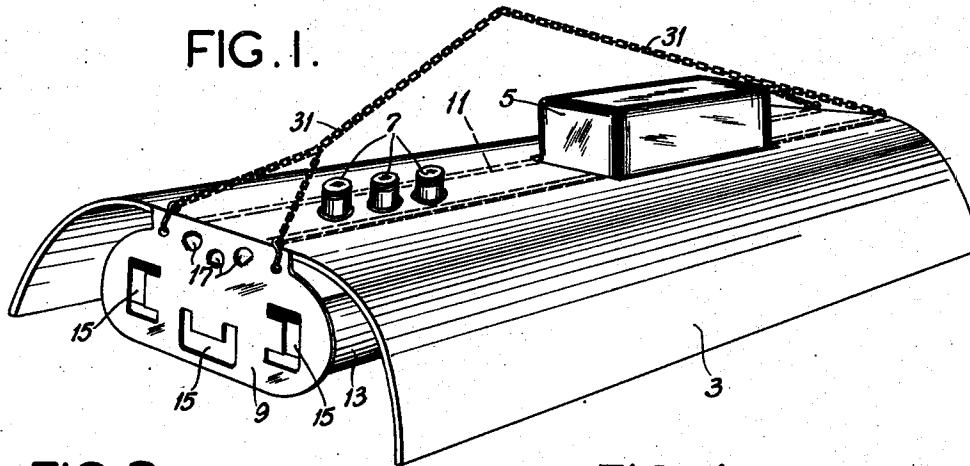


FIG. 4.

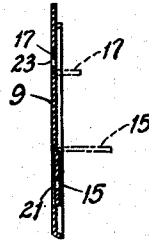
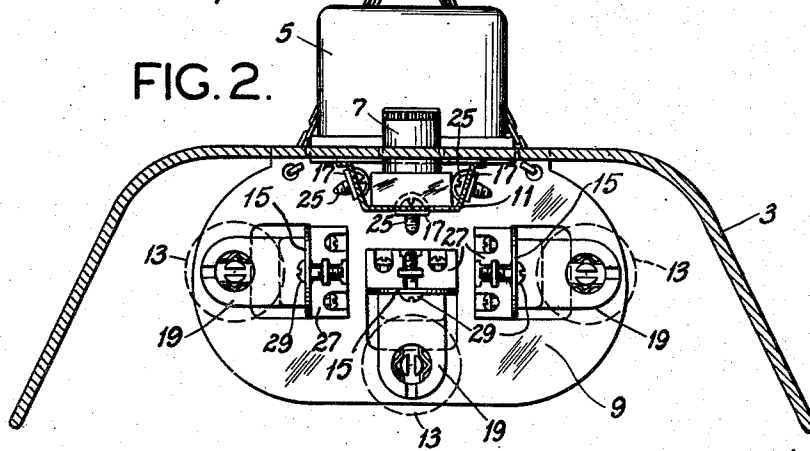


FIG. 2.



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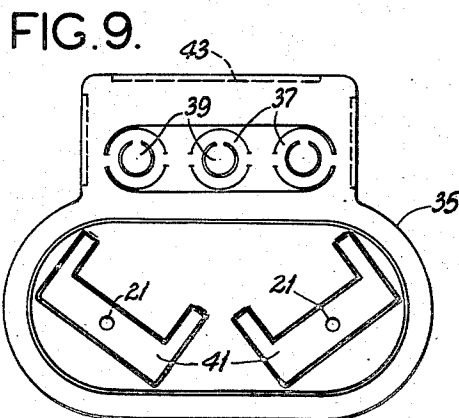
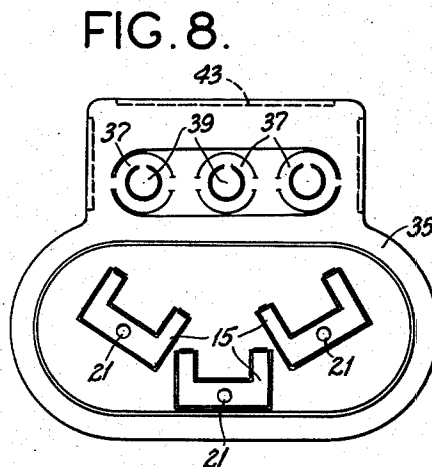
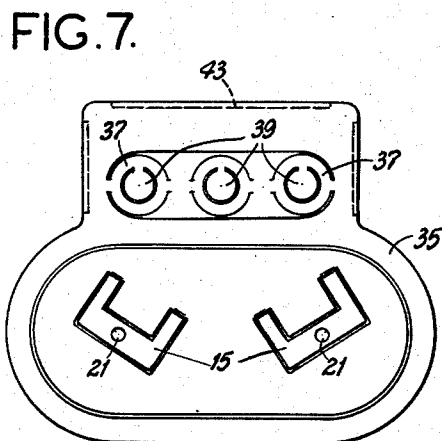
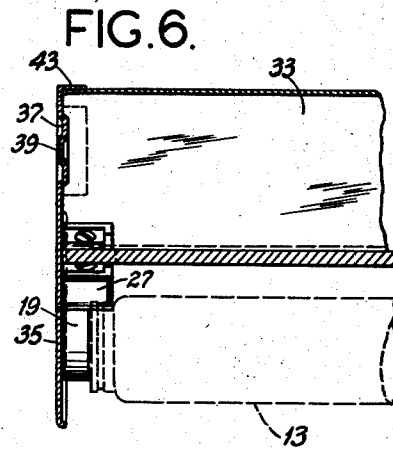
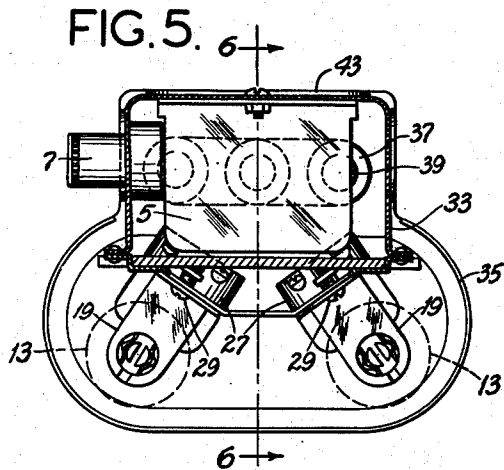
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LIGHTING FIXTURE

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5 Claims. (Cl. 240—78)

This invention relates to lighting fixtures and more particularly to lighting fixtures for tubular fluorescent lamps.

Among the objects of this invention are the provision of an improved lighting fixture of the class referred to which is relatively sturdy; the provision of a lighting fixture which may be easily made and quickly installed, which supports the lamp sockets and at the same time provides protection therefor. Other objects will be in part apparent and in part pointed out hereinafter.

In the accompanying drawings, in which are illustrated several of various possible embodiments of the invention,

Fig. 1 is a perspective view of a lighting fixture of the present invention;

Fig. 2 is an end view of a lighting fixture with one end plate carrying the sockets, and lamps removed;

Fig. 3 is a plan view of an end plate;

Fig. 4 is a section taken along line 4—4 of Fig. 3;

Fig. 5 is an end view of another embodiment of the invention from which the end plate has likewise been removed;

Fig. 6 is a section taken along line 6—6 of Fig. 5;

Fig. 7 is a plan of the end plate of the Fig. 5 and Fig. 6 embodiment;

Fig. 8 is a plan of an alternative form of end plate; and,

Fig. 9 is a plan of still another form of an end plate.

Similar numbers indicate corresponding parts throughout the various views of the drawings.

Referring now to Fig. 1, a light fixture is illustrated having a reflector 3, lamp ballast 5, starters 7, end plates 9, a supporting channel 11 and lamps 13. End plates 9 have partially relieved or struck-out portions of two different types, 15 and 17. The relieved bridge-shaped portions 15, when bent away from end plates 9, provide saddle-shaped or bridge-shaped supports for the generally L-shaped lamp sockets 19. Ears 17, when pushed out of the plane of end plates 9, provide attaching portions for attaching the end plates 9 to channel support 11. Suitable openings 21 and 23 are provided in the saddle portions 15 and ear portions 17 respectively. Bolts 25 hold the end plate in position on channel 11.

Fig. 4 illustrates in dotted lines the saddle or bridge-shaped portions 15 and ears 17 bent out into position for attachment of the end plates 9 to the channel 11 and for attaching the sockets 19 in position to receive lamps 13. In Fig. 2 the sockets 19 are shown as having one leg of their

L-shapes passed through the struck-out bridge portions, the other leg of each L-shape resting on the saddle or bridge 15. Thus the electrical socket proper extends through an opening formed when the saddle 15 is pushed out vertically in relation to the end plates 9. This is the preferred embodiment, and the socket itself serves as an insulator. An insulating piece need not be inserted between the socket portion 27, which rests on saddle 15, and the saddle. However, the socket 19 may be supported underneath the saddle 15, in which case the bolt 29, instead of serving merely as a positioning element in cooperation with hole 21 in saddle 15, will serve as the attachment and support for socket 19.

The L-shaped sockets 19 which are of conventional construction are preferably made of insulating material such as porcelain or plastic.

The supporting channel 11 carries not only the end plates 9 but the starters 7 and lamp ballast 5. Suitable openings are cut in reflector 3 for passage of the starters 7 and ballast 5. In this way reflector 3 rests on channel 11, as shown. Suitable supporting means such as chain 31, may be used to suspend the fixture from the ceiling.

The end plates 9 not only provide, through saddle members 15, support for the lamp sockets 19, but also act as socket protectors. These plates extend behind the lamp-holding sockets to protect them against abuse during transportation, installation and at reflector cleaning time. A broken socket means a rewiring operation. These socket-supporting end plates act as buffers against such abuse. They also assure accurate socket positioning in service.

The spacing of the saddle portions 15, as shown in Figs. 1 and 3, is preferred, since it facilitates wiring the light fixture. The sockets 19 are easily installed or removed without dismantling the remainder of the fixture.

One of the important advantages of the present fixture is that it may be almost completely assembled in the plant before shipping. This avoids difficulties otherwise inherent in the installation of such structures with unskilled labor. In the present structure the channel support 11, end plates 9, starters 7, ballast 5, and sockets 19 may all be assembled, and the fixture wired in the manufacturing plant. The assembled fixture may then be shipped as one unit, the reflector shipped separately, and the installation of the structure accomplished merely by suspending the fixture, placing the reflector 3 in position, and attaching the wiring leads to a source of power.

In Figs. 5-7 is illustrated another embodiment

of the invention. Here the supporting channel 33 not only supports but encloses the lamp ballast 5. In this instance, the end plates 35 are constructed so as to cover the ends not only of the lamp sockets but the ends of the channel 33 as well. Knock-out plugs 37 and 39 are preferably provided in end plates 35 for use in wiring, and in attaching together a plurality of fixture units. It will be noted that in this embodiment, the saddles 15 have been located on a diagonal line, and since the structure is a two-light unit, only two of these saddles have been provided.

Fig. 8 illustrates the way in which a third saddle 15 can be added to the Fig. 5-7 embodiment. In this way, a third tubular light may be added to a two-light fixture.

The saddle-shaped portion should be of adequate size to support the sockets. Fig. 9 illustrates an end plate for a unit having larger tubular lights. If it be assumed that the saddles 15 are of adequate size to support a socket for a 40-watt fluorescent lamp, the saddles 41 in Fig. 9 may be regarded as of sufficient size to support a 100-watt tubular lamp socket.

In lieu of the attaching ears 17, the end plates may merely be riveted onto the supporting channel. It will be noted that this is what is done in the Fig. 5-7 illustrative embodiment. Bent-over portions 43 may be utilized for this attachment.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As many changes could be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A lighting fixture for tubular fluorescent lights comprising a supporting channel, end plates attached to said supporting channel, lamp sockets for supporting said tubular fluorescent lamps, a reflector supported by but not attached to said supporting channel, and supports for said lamp sockets, the plane of one of said supports being positioned at an angle with respect to the plane of another of said supports, said supports having been relieved from said end plates.

2. A lighting fixture for tubular fluorescent lamps comprising a supporting channel, end plates attached to said supporting channel, lamp sockets

for supporting said tubular fluorescent lamps, supports for said lamp sockets, said supports having been relieved from said end plates, a separate reflector supported by said supporting channel but not physically attached thereto, and supporting means for attaching the supporting channel to a ceiling.

3. A lighting fixture for tubular fluorescent lamps comprising a supporting channel, end plates attached to said supporting channel, lamp sockets for supporting said tubular fluorescent lamps, supports for said lamp sockets, said supports having been relieved from said end plates, a separate reflector supported by said supporting channel but not physically attached thereto, and supporting means for attaching the supporting channel to a ceiling, the plane of one of said lamp socket supports being positioned at an angle with respect to the plane of another of said lamp socket supports.

4. A lighting fixture for tubular fluorescent lamps comprising a supporting channel, end plates attached to said supporting channel, lamp sockets for supporting said tubular fluorescent lamps, supports for said lamp sockets, said supports having been relieved from said end plates, a separate reflector supported by said supporting channel but not physically attached thereto, supporting means for attaching the supporting channel to a ceiling, the plane of one of said lamp socket supports being positioned at an angle with respect to the plane of another of said lamp socket supports, and partially relieved attaching members relieved from said end plates for attaching said end plates to said channel.

5. A lighting fixture for tubular fluorescent lamps comprising a supporting channel, end plates attached to said supporting channel, lamp sockets for supporting said tubular fluorescent lamps, three supports for said lamp sockets at each end of said supporting channel, said supports having been relieved from said end plates, a separate reflector supported by said supporting channel but not physically attached thereto, and supporting means for attaching the supporting channel to a ceiling, the plane of one of said lamp socket supports at each end of said supporting channel being positioned at an angle with respect to the planes of the other lamp socket supports at each end.

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