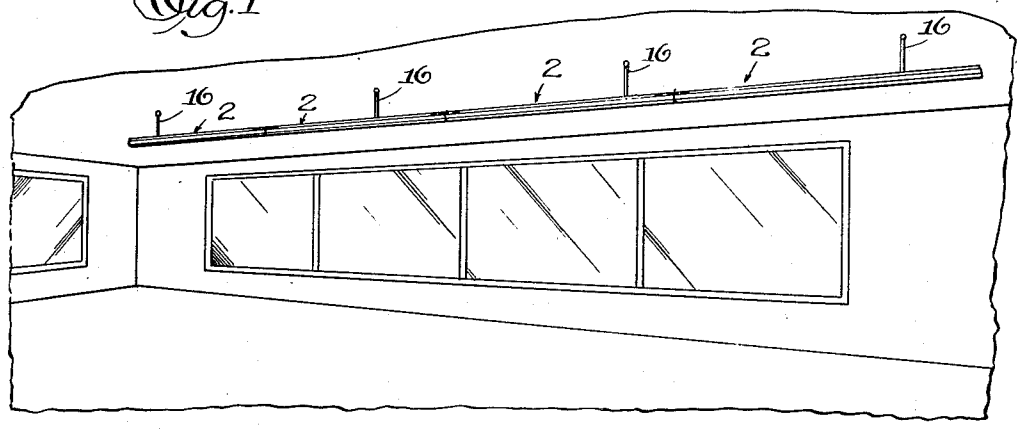
Aug. 26, 1958 E. F. ZURAWSKI 2,849,595

FLUORESCENT LIGHT FIXTURE

Filed March 16, 1955

Fig. 1



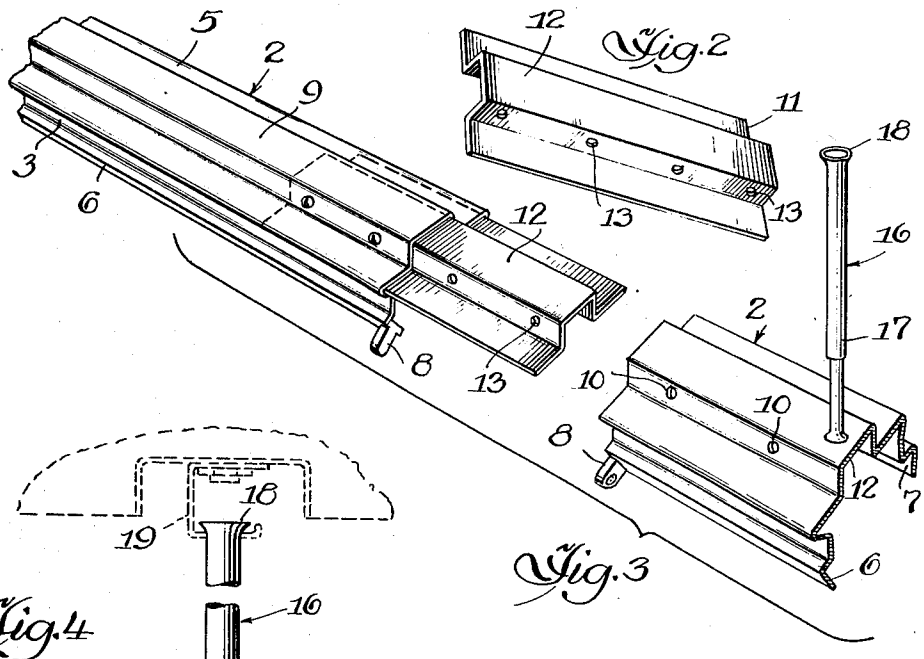
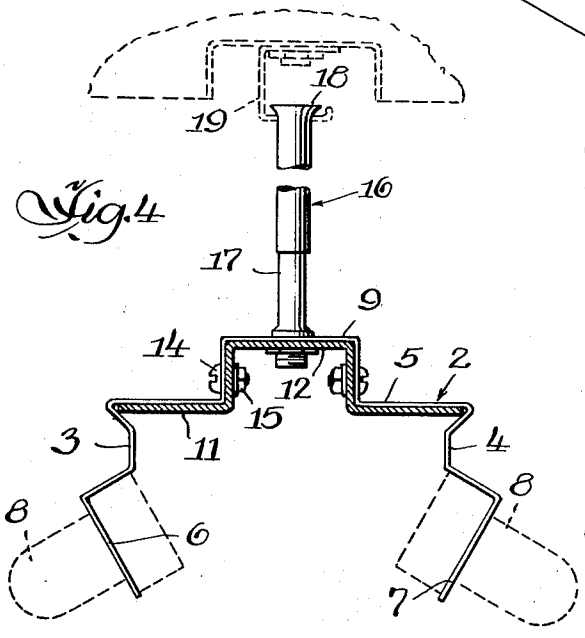


Fig. 2

Fig. 3

Fig. 4



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FLUORESCENT LIGHT FIXTURE

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3 Claims. (Cl. 240—9)

This invention relates to a fluorescent light fixture, and is particularly concerned with means for joining a plurality of reflector sections in end to end relationship to provide a fixture of any desired length with sufficient strength and rigidity to permit it to be installed as a unit.

Heretofore, when it was desired to install a plurality of fluorescent fixtures in a single line in end to end relationship, it has been customary to hang each fixture separately, and to install the wiring after the individual fixtures were positioned. Such a method was necessary because long sections of reflectors were too weak in the longitudinal direction to be installed as a unit and would sag or break along the transverse lines of juncture. This method of hanging the individual sections and then joining them requires an excessive amount of labor because the workmen must climb up and down ladders many times, and must work with their hands raised above their heads to connect the individual sections.

The rigidity of my improved fixture and coupling facilitates installation of the fixture in any desired length, and reduces the labor cost. The workmen connect the plurality of reflectors on a bench or on the floor before the fixture is hung from the ceiling, and therefore do not have to work with their hands raised above their heads. Furthermore, the hangers may be applied anywhere along the length of the fixture, and accordingly the cost of installation is reduced by reducing the number of hangers that are used to support a predetermined length of reflectors. The rigidity of the coupling is attained without making it too cumbersome to use.

The structure by which the above and other advantages of the invention are attained will be described in the following specification, taken in conjunction with the accompanying drawings, showing a preferred illustrative embodiment of the invention, in which:

Figure 1 is a fragmentary perspective view of a room having a fixture embodying the invention installed therein and depending from the ceiling;

Fig. 2 is a detail perspective view of the coupling by which the individual reflector sections are joined together;

Fig. 3 is a fragmentary perspective view of two reflector sections in separated relationship with a coupling secured to one of the reflector sections; and

Fig. 4 is a cross sectional view of a fixture embodying the invention, showing the securement of one of the hangers to the ceiling and also the sockets in dotted lines.

In the drawings, the reference numeral 2 indicates a reflector section comprising a pair of side walls 3 and 4 having their upper longitudinal edges connected by a top wall 5. The side walls 3 and 4 each comprise a series of angular portions terminating in flanges 6 and 7, respectively, which are inclined inwardly in symmetrical relationship. Each flange 6 and 7 has a socket 8 secured to each end thereof. The sockets at opposite ends of each flange face each other to hold the opposite ends of a fluorescent tube. Although sockets 8 are shown as

extending outwardly at right angles to flanges 6 and 7, it is obvious that they may be arranged in any desired relationship to the reflector.

Top wall 5 is provided with a centrally disposed upstanding channel 9 extending longitudinally thereof. The channel serves as a reinforcing rib for the top wall and stiffens it considerably, particularly in the longitudinal direction. The channel also serves as a compartment to hold the wiring for the fluorescent tube. The compartment may be closed by a thin metal sheet having longitudinal flanges secured to the sides of channel 9 in any suitable manner. If desired, a closure plate may be secured to the lower edges of flanges 6 and 7 to enclose the entire space within the reflector. The edges of channel 9 are provided with a pair of apertures 10 adjacent each end. A coupling 11 of comparatively thick stock is shaped to conform to the configuration of top wall 5. Coupling 11 has a channel 12 adapted to fit within channel 9, and the edges of channel 12 are provided with apertures 13 adapted to register with apertures 10 of two reflector sections 2 in abutting end to end relationship. Screws 14 extend through aligned apertures 10 and 13 and are held by nuts 15 to secure coupling 11 to the abutting ends of two reflector sections. Couplings 11 are comparatively short, and therefore do not add appreciable weight to the fixture, but are sufficiently rigid to make it possible for any number of reflector sections joined in the manner described to be handled as a single unit.

Individual reflectors are presently made in lengths up to eight feet. Heretofore it has always been considered necessary to provide two hangers for each individual reflector of such length when a plurality of them were joined in end to end relationship. The rigidity of my improved fixture is so great that the hangers may be positioned anywhere along the length of the fixture, and only one hanger is required for each eight foot section. The hanger 16 comprises an adjustable stem 17 having its lower end extending to the top of channel 9. The lower end of stem 17 may be secured to a clamp mounted on channel 9, or may extend through the top of channel 9 and be secured by a nut. The lower end of stem 17 is threaded so that it may be readily secured in place. The upper end of stem 17 is provided with a flange 18 by means of which it is secured to a hickey 19 depending from the ceiling. The reflector sections are delivered to the site of installation in standard eight foot lengths. A coupling 11 is secured to a reflector section with one half the coupling projecting beyond the end of the reflector section. Another reflector section is then positioned with one end abutting the first reflector section, and its apertures 10 aligned with the exposed apertures 13 of the coupling. The second reflector section is then secured to the coupling, and the process is repeated until the desired length of reflector is obtained. It is also possible to position two reflector sections with their ends abutting, and then secure a coupling to both reflector sections.

When the reflector has the desired length, hangers 16 are secured to the reflector in spaced relationship conforming to the spaced relationship between the hickeys secured to the ceiling. The wiring of the various sections is connected, and the entire length of completely assembled fixtures is then lifted to the ceiling and positioned with each stem suspended from a hickey mounted on the ceiling. The reflector may be provided with apertures for stems 17 or stems 17 may be secured to the reflector by suitable clamps. The stems are then adjusted to provide uniformity in the height of the reflector, and the ends of the wiring are connected to the feed line.

The fluorescent bulbs are positioned in the reflector, and if any shields are used they are applied to the reflector.

From the foregoing description it will be seen that I have invented a new and useful fixture that may be easily assembled in any desired length, and will retain its position without sagging, with a minimum of support. Although I have described a preferred embodiment of my invention in considerable detail, it will be understood that the description thereof is intended to be illustrative, rather than restrictive, as many details may be modified or changed without departing from the spirit or scope of the invention. Accordingly, I do not desire to be restricted to the exact details of construction described.

I claim:

1. A fluorescent light fixture comprising a pair of reflectors arranged in end to end relationship, each of said reflectors having a top wall provided with an integral upstanding channel of less width than said top wall extending longitudinally thereof and forming an integral stiffening rib for said top wall, said channel comprising a top wall parallel to the plane of the top wall of the reflector and two side walls extending between the top wall of the channel and the top wall of the reflector, and a coupling secured to adjacent ends of said reflectors, said coupling having a longitudinally extending upstanding channel fitting snugly within said first mentioned channels and a pair of flanges extending laterally outwardly from the lower edges of said coupling channel, said flanges fitting flush against the underside of the top wall of said reflectors.

2. A fluorescent light fixture comprising a pair of reflectors arranged in end to end relationship, each of said reflectors having a top wall provided with an integral upstanding channel of less width than said top wall extending longitudinally thereof and forming an integral stiffening rib for said top wall, said channel comprising a top wall parallel to the plane of the top wall of the reflector and two side walls extending perpendicularly between the top wall of the channel and the top wall of the reflector, and a coupling of substantially the same

width as the width of said top walls, said coupling having a longitudinally extending channel fitting snugly within said first mentioned channels and a pair of flanges extending laterally outwardly from the lower edges of said coupling channel, such flanges fitting flush against the underside of the top wall of said reflectors, said coupling being secured to adjacent ends of said reflectors.

3. A fluorescent light fixture comprising a pair of reflectors arranged in abutting end to end relationship, each of said reflectors having a top wall provided with an integral longitudinal channel of less width than said top wall forming an integral stiffening rib for said top wall, each of said channels having upstanding sides provided with an aperture adjacent each of said abutting ends, each of said sides extending perpendicularly to said top walls, and a coupling positioned adjacent said top walls and extending across the adjoining ends of said reflectors, said coupling having a longitudinal upstanding channel fitting snugly within said first mentioned channels and a pair of flanges extending laterally outwardly from the lower edges of said coupling channel, said flanges fitting flush against the undersides of the top walls of said reflectors, said coupling channel having side walls provided with apertures aligned with said first mentioned apertures, and fastening means extending through said aligned apertures to secure said coupling to both of said reflectors.

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