Nov. 21, 1950 S. R. NAYSMITH 2,531,232

FLUORESCENT LIGHTING FIXTURE

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Fig. 1

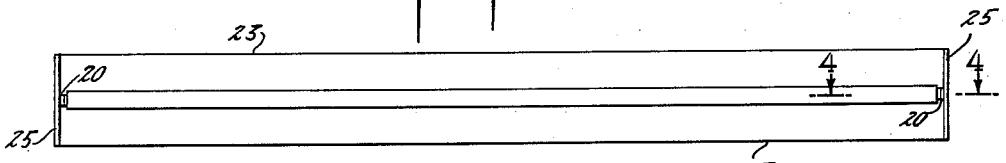



Fig. 2

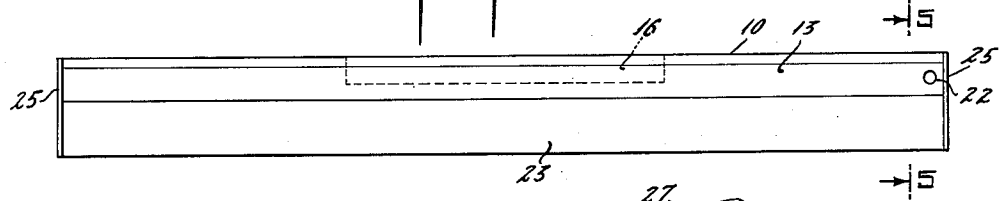



Fig. 3

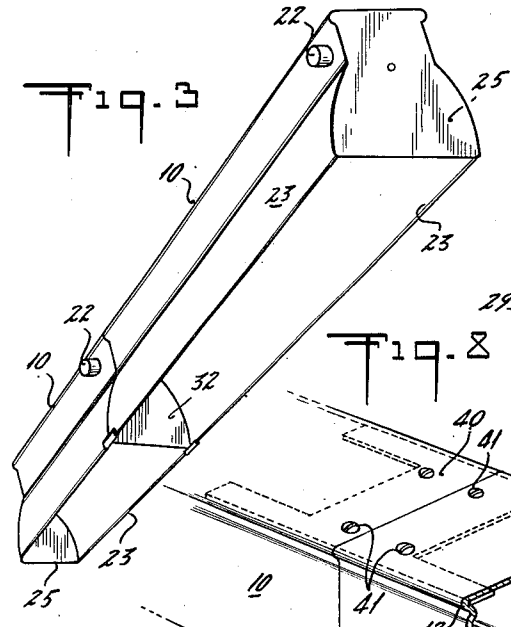



Fig. 6

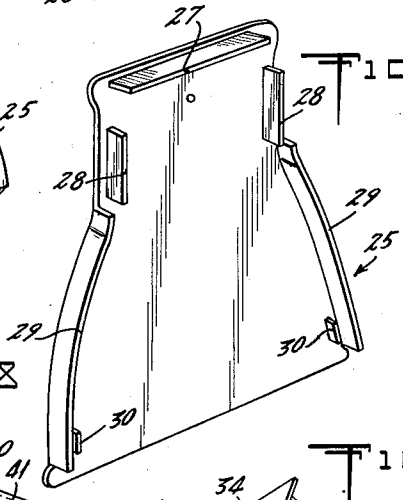



Fig. 8

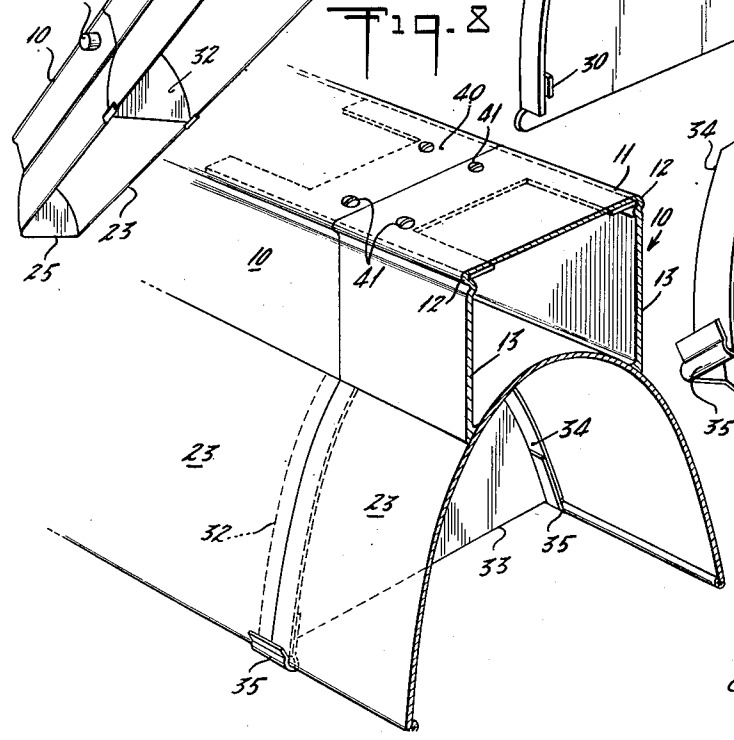
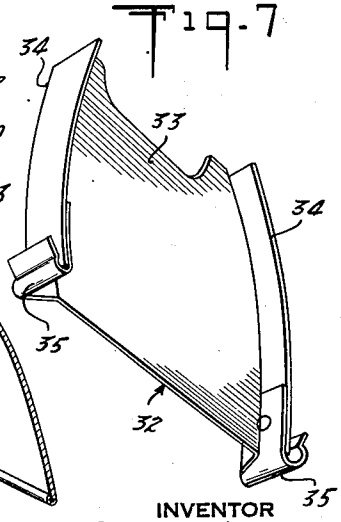



Fig. 7




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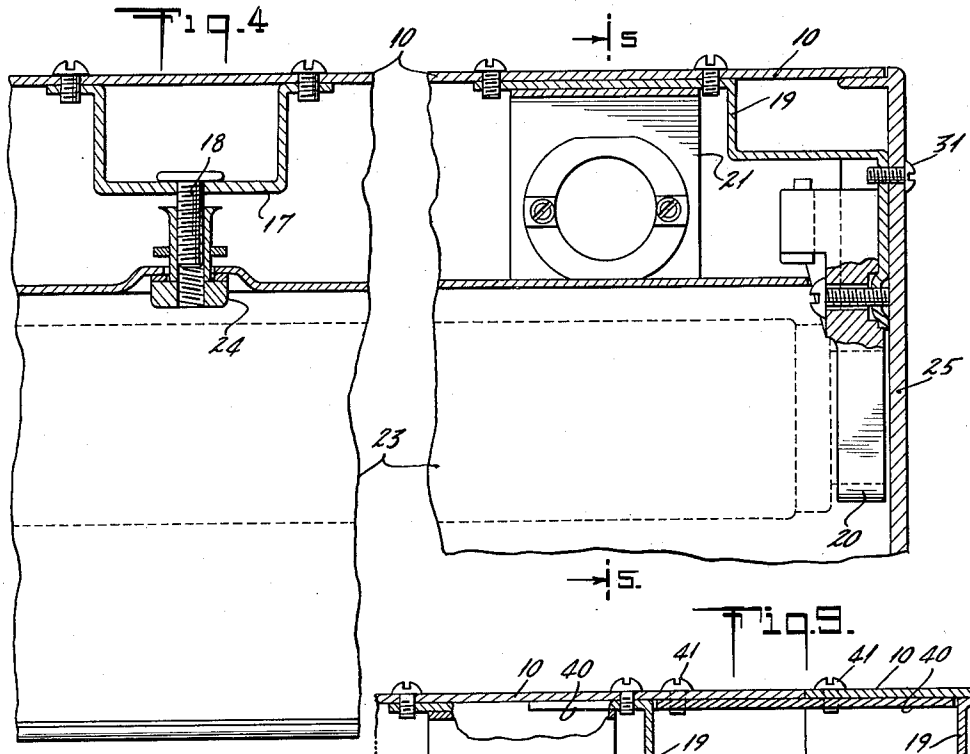
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FLUORESCENT LIGHTING FIXTURE

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Fig. 4

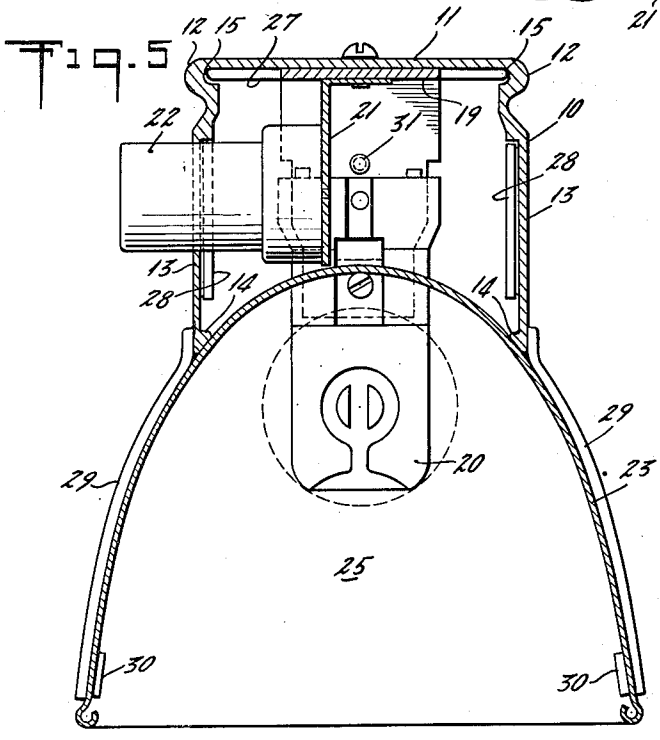


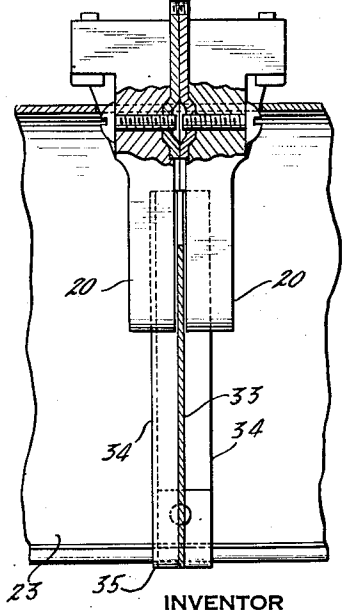

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Fig. 9.




Fig. 5




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# UNITED STATES PATENT OFFICE

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## FLUORESCENT LIGHTING FIXTURE

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Application January 14, 1947, Serial No. 721,970

2 Claims. (Cl. 240—51.11)

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The present invention relates to fluorescent lighting fixtures and is more particularly directed toward single lamp fluorescent lighting fixtures which may be used as individual units or as continuous equipment.

The present invention contemplates the use of extruded metal, preferably aluminum, wiring channels cut to nominal lamp length or a multiple thereof. The wiring channel is shaped to facilitate mounting it in more or less conventional fluorescent fixture hangers and carries the sockets, reflector, and end plates.

The present invention also contemplates the employment of baffles arranged between the ends of adjacent lamps so as to screen the lamps and hold the reflectors in alignment.

Other and further objects will hereinafter appear as the description proceeds.

The accompanying drawings shown, for purposes of illustrating the present invention, an embodiment in which the invention may take form, it being understood that the drawings are illustrative of the invention rather than limiting the same.

In these drawings:

Figure 1 is an inverted plan view of a single lamp unit;

Figure 2 is a side elevational view of the same;

Figure 3 is a perspective view of a lighting unit of double lamp length;

Figure 4 is a longitudinal sectional view taken on the line 4—4 of Figure 1;

Figure 5 is a vertical cross-sectional view taken on the lines 5—5 of Figures 2 and 4;

Figure 6 is a perspective view of an end plate;

Figure 7 is a perspective view of a combined baffle plate and reflector alignment device;

Figure 8 is a perspective view illustrating the coupling together of two wiring channels and the employment of the baffle plate; and

Figure 9 is a longitudinal sectional view showing the securement of two lamp units together.

The lighting equipment employs an extruded, preferably aluminum, wiring channel 10, of single lamp length as illustrated in Figures 1 and 2, or a double lamp length as indicated in Figure 3. This wiring channel has an upper flat wall 11, external beads 12—12, depending side walls 13—13 and reinforcing ribs 14—14 at the bottom. It preferably has internal grooves 15—15 inside the beads 12—12. The wire way carries a fluorescent lamp ballast 16 arranged over the middle of each lamp to be carried. The wire way also carries straps 17, carrying reflector supporting studs 18, welded in place, and straps 19 at the ends of the

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channel adapted to support fluorescent lamp sockets 20. One of the pair of straps 19 required for the sockets for each lamp carries a bracket 21 adapted to carry the starter 22.

Reflectors 23 usually of single lamp length and made of anodized aluminum, are provided with thumb nuts 24 adapted to fit the welding bolts or studs 18 to hold the reflectors in place. The contour of the reflector will depend upon the light distribution desired. Where a lighting unit is of single lamp length as shown in Figures 1 and 2, each end of the fixture carries an end plate 25 shown in detail in Figure 6. This end plate has an upper inwardly extending flange 27 adapted to fit under the top wall 11 of the wiring channel and may enter into the grooves 15, side flanges 28—28 adapted to fit inside the side walls 13—13 of the wiring channel and outer downwardly and outwardly extending flanges 29—29 of a contour to fit about the reflector and the lower edge of the wiring channel as is more clearly shown in Figure 5. The end plate also has small alignment lugs 30 which fit inside the reflector to keep it from being bent inwardly. The end plates are held in place by screws indicated at 31. At least one of these screws is loosened when the reflector is to be placed in the fixture or removed so that the reflector can pass by the lugs 30.

Where the wiring channel is a double lamp length or where wiring channels are to be secured together end to end, the present invention contemplates the employment of a baffle 32 between adjacent lamp sockets. This baffle is made of this sheet metal and has a portion 33 adapted to extend across inside the reflector and enter between the lamp sockets and side flanges 34—34 which fit the inner surfaces of the ends of the reflectors and bridge the space between them holding them in alignment from the inside. The baffle carries spring clips 35—35 which engage around the lower beaded portions of the reflectors and hold them in alignment from the outside.

Two wiring channels may be held together end to end by an H-shaped connecting strap 40. This strap is secured inside the channels by screws 41. It fits inside the beads 12, 12 and is notched to accommodate the socket supporting straps 19.

Since it is obvious that the invention may be embodied in other forms and constructions within the scope of the claims, I wish it to be understood that the particular form shown is but one of these forms, and various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

What is claimed is:

1. A fluorescent lighting fixture of the single lamp type, comprising an extruded-metal inverted wiring channel of nominal lamp length and having a flat upper wall, external, longitudinally-extending outwardly-facing beads along and just below the edges of the upper wall for the reception of supporting clamps, inner, longitudinally-extending inwardly-facing grooves inside and above the external beads, and side walls extending vertically downward from the beads and grooves, the lower edges of the side walls having interiorly disposed stiffening ribs, interiorly disposed fluorescent lamp socket carrying brackets secured to the upper wall of the wiring channel at a short distance from the end of the channel and spaced below the end of the upper wall of the channel at the ends thereof to be out of contact therewith, the brackets extending downwardly in the plane of the end of the channel, reflector supporting studs carried by the upper wall of the channel, a trough shaped sheet metal reflector of the same length as the channel, carried by the studs and held against the stiffening ribs, and an end plate secured to an end bracket and having an upper flange fitting in the grooves, side flanges fitting the inner side walls of the channel and outer flanges fitting about the ends of the reflector below the wiring channel, the flanges serving to align the end plate and reflector end with respect to one another and the channel, a lamp socket secured to each bracket, and a socket carried lamp in the reflector.



2. A fixture such as claimed in claim 1 having a second length of like wiring channel carrying the like brackets, sockets, reflector supporting studs, reflector and lamp, and wherein the ends of the channels and reflector ends abut, and having a channel connecting strap entering the grooves in the channels and secured to the upper walls of the channels, and a baffle plate extending transversely of the reflectors at the joint where they meet, the baffle plate having flanges extending across the joint and fitting the inner contour of the reflectors to hold them aligned, and means to hold the baffle plate in place.

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